University News

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Association of Indian Universities

UNIVERSITY OF ROORKEE

Admission to Postgraduate Programmes 1999

THE UNIVERSITY

The University of Roorkee, a premier institute of Science and Technology, has a distinguished tradition of excellence spanning over 150 years. The University has 26 Academic Departments and Centres engaged in teaching, research and consultancy in the field of Engineering, Technology, Science and Management. The University offers 10 Undergraduate Courses in Engineering & Architecture and 56 Postgraduate Courses in Engineering, Architecture, Science, Technology and Business Administration. The University has been placed at the top in the country in the coveted sector employment in science and technology.

Ph.D. PROGRAMMES

Research facilities leading to doctoral degree are available in Engineering, Science and Humanities Departments. Candidates holding Senior/Junior fellowship (SRF/JRF) of CSIR or any other fellowship and sponsored candidates interested in pursuing Ph.D programmes need to apply on prescribed Application Form. Few University research fellowship are also available for very deserving candidates. Application Form can be obtained from Assistant Registrar (Acad.) by sending a written request alongwith a demand draft for Rs. 50/- drawn in favour of Registrar, University of Roorkee, payable at Roorkee.

MASTER'S PROGRAMMES

A : ARCHITECTURE & ENGINEERING
M.E/M.TECH/M.ARCH/M.U.R.P : (1½ YEARS)

1. ***Architecture and Planning Department***
   • Architecture • Urban and Rural Planning
2. ***Chemical Engineering Department***
   • Computer Aided Process Plant Design • Industrial Pollution Abatement
3. ***Civil Engineering Department***
   • Building Science and Technology • Computer Aided Design • Environmental Engg. • Geotechnical Engg. • Hydraulic Engineering • Remote Sensing & Photogrammetric Engineering • Structural Engineering • Transportation Engineering
4. ***Earthquake Engineering Department***
   • Soil Dynamics • Structural Dynamics *• Earthquake Engg. & Earthquake Tech. (Under Extension Programme)
5. ***Electrical Engineering Department***
   • Measurement & Instrumentation • Power System Engg. • Power Apparatus & Electric Drives* • System Engg. and Operations Research
6. ***Electronics & Computer Engineering Department***
   • Communication Systems • Control and Guidance • Microwaves and Radar • Solid State Electronics • Computer Science and Technology
7. ***Mechanical & Industrial Engineering Department***
   • Production and Industrial System Engg. • Thermal Engg. • Welding Engineering • Machine Design Engineering
8. ***Metallurgical & Materials Engineering Department***
   • Industrial Metallurgy • Physical Metallurgy
9. ***Institute of Paper Technology (IPT), Saharanpur***
   • Pulp & Paper
10. ***Alternate Hydro Energy Centre***
   • Alternate Hydro Energy Systems

Minimum Qualification : Bachelor's Degree in the appropriate field of Engineering/Technology/Architecture. Some Alternative Qualifications exist which are detailed in the Information Brochure. M.Sc. in Electronics, Computer Science, Physics, Mathematics or Statistics with a background in Electronics and Computers. Non GATE candidates need not apply for courses in Civil/Electronics & Computer/Mechanical Engg. Departments.

B : POSTGRADUATE DIPLOMA (1 YEAR)
Earthquake Engineering Department
*Earthquake Engineering *Earthquake Technology.
****For sponsored candidates only***

C : SCIENCES
M.PHIL. (1 YEAR)

1. ***Chemistry Department***
   • Industrial Methods of Chemical Analysis
2. ***Mathematics Department***
   • Computer Applications • Mathematics
3. ***Physics Department***
   • Instrumentation • Material Science

Minimum Qualification : Master's Degree in Science in appropriate discipline or B.E. Degree; Diploma in Process Instrumentation (IPT) for M.Phil Instrumentation

M.TECH. (3 YEARS)
Earth Sciences Department
*Applied Geology **Applied Geophysics

Minimum Qualification : *Bachelor's Degree with Geology;
**B.Sc. with in Physics & Maths

M.Sc. (2 YEARS)
• Applied Geology • Applied Maths • Biotechnology • Chemistry • Industrial Maths & Informatics • Physics

Minimum Qualification : Bachelor's Degree of 3 years duration (in 10+2+3 system) in Science in appropriate discipline.

UNIVERSITY DIPLOMA (2 YEARS)
Institute of Paper Technology (IPT), Saharanpur
• Pulp and Paper • Process Instrumentation

Minimum Qualification : Bachelor's Degree (3 years course) in Science with Physics, Chemistry and Mathematics

Eligibility for Sciences Programmes : 54% marks for GEN. & OBC and 49% marks for SC/ST candidates.

INFORMATION BROCHURE & APPLICATION FORM AVAILABLE FROM APRIL 7 TO MAY 22, 1999

Information Brochure and Application Form can be obtained from the following branches of Punjab National Bank on cash payment of Rs. 350/- for general and OBC candidates, and Rs. 120/- for SC/ST candidates.

Agra (Belanganj); Allahabad (Civil Lines), Bangalore (City), Calcutta (Brabourne Road), Chandigarh (Sector 17), Chennai (Anna Salai), Delhi (Parliament Street), Hyderabad (Bank Street), Lucknow (Hazratganj), Mumbai (PNB House, Fort), Roorkee (University), Varanasi (Nichi Bagh).

Form can also be obtained from Assistant Registrar (Acad.) by sending a written request so as to reach on or before 18 May, 1999 alongwith a bank draft of Rs. 400/- for General and OBC candidates and Rs. 170/- for SC/ST candidates, drawn in favour of the Registrar, University of Roorkee payable at Roorkee. The candidates appearing for their final qualifying examination are also eligible to apply. Seats are reserved for OBC and SC/ST candidates as per State Govt. rules.

Note : Candidates must clearly mention the programme i.e. Engineering or Sciences in which they desire to seek admission while obtaining the form from the bank or sending request to Assistant Registrar (Acad).

CENTRES AND DATES FOR ADMISSION TESTS

SCIENCE PROGRAMMES : Agra, Calcutta, Delhi, Hyderabad, Lucknow, Roorkee, Varanasi on June 26 & 27, 1999.

ENGINEERING PROGRAMMES : Roorkee on July 3 & 4, 1999.

LAST DATE FOR RECEIPT OF COMPLETED APPLICATIONS : May 26, 1999

For detailed information, please contact :

ASSISTANT REGISTRAR (ACADEMIC),
UNIVERSITY OF ROORKEE, ROORKEE-247 667
Tel. 01332-85098 Fax : 01332-73560
E-mail: dap@rurkiu.ernet.in

Web Address :

Sciences : http.//www.rurkiu.ernet.in/pgsci/index.htm and http://members.tripod.com/~rurkiu/pgsci/index.html

Engineering : http.//www.rurkiu.ernet.in/pgengg/index.htm and http://members.tripod.com/~rurkiu/pgengg/index.html

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The Scholarly Communication Process

The Merging Roles of Publishers and Librarians

Harsha Parekh*

Publishing and librarianship are two professions that are situated at the frontier of the change — or rather a revolution — being caused by Information Technology (IT). The revolution has brought about such a qualitative change in the history of human thought that it has been compared to only three earlier changes — the evolution of language, the advent of writing and the invention of the movable type and the printing press.[1] Harnad explains : "The reason I single out as revolutionary only speech, writing and print in this panorama of media transformations that shaped how we communicate is that I think only those three had a *qualitative* effect on how we think. In a nutshell, speech made it possible to make propositions, handwriting made it possible to preserve them speaker-independently, and print made it possible to preserve them hand-writer-independently. All three had a dramatic effect on *how* we thought as well as on how we expressed our thoughts, so arguably they had an equally dramatic effect on *what* we thought."[2]

The impact of IT on publishing and librarianship is so significant that the two professions are being redefined. It is possible to look at the change from varying perspectives viz. the use of technology, effect on methods employed, impact on reading etc. I propose to place the change in the context of the scholarly information and communication process.

Publishers and librarians share a common goal and that is to ensure what Dr. S.R. Ranganathan called the first two laws of library science; "Every reader his/her book" and "Every book its reader". Both academic librarians and professional/scholarly publishers exist within a scholarly community that values professional and scholarly information and has high expectations of its role in solving the human, social, scientific and cultural issues of our day.[3] In the context of research and education, the process through which scholars convey their knowledge to, and exchange ideas with, each other and future generations, is referred to as the scholarly communication process. This is a "conceptualisation of the process whereby a valuable raw material, namely ideas, turns into a digestible consumer product, information and the higher form of information we call knowledge."[4]

The process not only includes authors, teachers, researchers etc, who generate and record information and the readers who receive it, but also a host of intermediaries — publishing houses, learned societies, booksellers, libraries etc. As Gordon Graham, editor of *Logos*, noted, "The Gutenbergian knowledge chain is roughly hexagonal : from author to publisher to printer to vendor to librarian to the reader, the ultimate consumer, who closes the loop with feedback to the author."[5]

The main vehicle used in this communication process has been the printed book — whether a monograph or a journal. The book has been both a physical and an intellectual entity. It is this basic component of

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**Professor of Library Science & University Librarian, SNDT Women's University, Mumbai.*

the scholarly communication process that has been most affected by the changes brought about by the IT revolution. Today, Information Technology has changed both the method of creating the records and the packaging of ideas.

The Digitization of Information

Digitization — the coding of information for direct processing by the computer — lies at the technical heart of a new and emerging vehicle of the information communication process. Increasingly, since the mid-1980s, digital technology has been used to create records of various kinds; text (word processing, spreadsheets, databases, desktop publishing), visual (digital cameras) and voice (digital recorders). So apart from text we have non-text (photographs, drawings, illustrations, works of art), streams of numeric data (satellite information, cosmological data), sound, visual moving images and three-dimensional representation (holograms) in digital format. Digital materials have several advantages over printed materials. They—

- May be available to users anywhere and at any time
- May be used simultaneously by more than one person
- Are "malleable" i.e. can be revised and reformatted easily
- Make feasible on-demand publishing
- Result in savings in turn around time
- Can integrate sound and motion with text
- Can be linked with other texts through hypertext linkages
- Can be made interactive, and responsive
- Can be copied and safeguarded from loss, damage or catastrophe
- Can be searched fully using Boolean operators.

A digital object is like a physical artifact in many ways. But there is an obvious shift in emphasis from the object containing information — that is, the book — to the content itself. Digitized objects can be linked to other objects on the World Wide Web, allowing users to jump from one resource to another across the traditional boundaries of the book.

A second change relates to the packaging of ideas. The codex book has been the standard form of presenting information. It prevailed for more than six centuries and proved to be an effective and durable technology. The book has been a linear operating system. We read it in one direction, from beginning to end, unless it is a book of reference. But even reference books are organized in a linear, usually alphabetic, order. Within the book, ideas are expressed in sentences and the reader is generally expected to read the text in a linear manner.

In a digital environment, the packaging of ideas is not limited to the print medium nor is it linear. As Kenneth Arnold states in his lecture "The Electronic Librarian is a Verb," delivered as part of the Gilbert A. Cam Memorial Lecture Series at the New York Public Library :

> "The new syntax of knowledge that operates in the digital environment is not linear... It is interacitve... Digression is the normal mode of discourse."[6]

Publishers and Librarians

As the medium of recording thoughts and the packaging of ideas change, so are the roles of the intermediaries in the scholarly communication process. The traditional roles of the library and the publisher are highlighted by Kahin : "Under the old model, publishers saw that books and journals were manufactured and physically delivered; libraries catalogued and archived books and journals from many publishers and made them available to one user at a time"[7]

Publishers' Roles

The publishing process includes development, authoring, formal and informal peer communiction, editing and validation, assuming financial risk, design and production, communicating persuasively with the market, negotiating and ensuring the functions of ownership/privacy/security, and distribution.[8] Publishers decide whose work will enter into the system of information distribution and thus provide a kind of quality control. They verify the accuracy and authenticity of what they publish. The values added by the publishers lie in quality control through selection committees and peer review, quality control through editorial assistance and format standardization and quality control through high production standards. To this publishers add efficient and varied distribution channels and services, including sales and marketing, copyright protection and royalty payments.[9]

With the Internet and the World Wide Web, it has become easier for individuals "to make public" what they wish to, without the help of a publisher. Although the value addition provided by publishers will still be needed by many, it is technically possible to "publish" without using the services of the publisher.

For the publisher, publication is no longer restricted to paper and print. Richard Snyder, Chairman of Simon & Suchuster in 1992, has articulated what this revolution has meant to publishers : "We're not just a publisher anymore, but a creator and exploiter of copyrights. We sell information in any form, in any way you want it... We are out of the confines of print, although that doesn't mean we are out of the print business. We can sell the same information in various forms. We can take any piece of information — a college textbook or a Scurities and Exchange Commission filing — and sell it in print, on line, on CD-ROM, on film, and on interactive laser discs."[10]

This new kind of publisher makes available to the user only the information the user wants only when the user wants it and in the most convenient form. Publishers of electronic information offer search facilities and access to specific sections in their publications and provide for "purchase" of selected articles in their digital journals, they are going beyond the traditional role of the publisher. In a sense, with this "just-in-time" publishing, the publisher is moving into the zone of dissemination, so far the responsibility of the library. As publishers maintain their own databases of their publications on the Net, they enter the zones of archiving and preservation, also so far the responsibilities of librarians.

Librarians' Roles

In the traditional communication process, libraries had provided a permanent archive of scientific achievement and a guaranteed source of access to their records. In addition, libraries and other information centres organised the scientific literature by means of cataloguing, classification, indexing, and related procedures. They helped create a directory of publications — both at the local institutional level and also at the larger national level. Additionally, they played the role of assuming some equity of access to information and they built up the capital of information, in the hope that the per-access cost of information was reduced. The value added by libraries lies in selection and acquisition, organization, access and reference services, preservation of scholarly materials and promotional and training activities.

Archiving, arranging, and access giving : these are the three 'A's of librarianship — the core activities through which libraries have historically justified their existence in the information chain.[11] However the exponential growth in the number of publications, the rising costs of materials and shrinking budgets have made the "just in case" model for the purchase of materials for a good library difficult, if not impossible, to follow.

The Andrew W Mellon Foundation in USA in a report in 1992, addressed the twin issues of explosion in the quantity of publication and its escalating cost, and the emergence and development of electronic information. It stated that "We have lived for many generations with a world in which the technology of publication meant that access required ownership, in other words, that scholarly communication was usable only if it were gathered in a large site-specific, self-sufficient collection. New electronic technologies allow the possibility of uncoupling ownership from access, the material object from its intellectual content. This possibility is revolutionary, perhaps dramatically so."[12]

With the availability of online information sources, and their pay-per-use policy, libraries have begun to move towards access rather than ownership. "As libraries move towards the access model, they are, in effect, abandoning their archival role and the concept of building an information capital for future users."[13]

Highlighting the change in emphasis from collection to organizing, Kenneth Arnold refers to the librarian as a verb. "[This] is a useful image, I think, because it implies movement. In the past the librarian, unlike most professionals, has been associated with a place, the library, a building. In the future, the librarian will be a vector, searching for and establishing connections. The library in which this librarian works is more a state of mind than a location. It is a set of neural connectors. And that is why the place called library is not the sentence in which the elctronic librarian dwells."[14]

Libraries are involved in organizing and disseminating the materials acquired. In addition, some small amount of secondary publications — including catalogues, bibliographies, indexes, etc — originates indirectly from libraries. It is interesting that online public access catalogue were among the first items available on the Internet, thus making libraries some of the first "publishers" on the Net. No longer restricted to containing bibliographic data of their own collection, libraries have mounted other electronic sources on their servers — first acquired indexes and abstracts, and later full text journals, textbooks etc and still later in-house prepared bibliographies, indexes, compilations, reading materials etc. In a sense, with this "publishing", the libraries are moving into the zone of publishers.

The essence of the change lies in the fact that in some instances one person or institution may now perform several functions at once. The individual may write, publish, archive, and disseminate from a single personal computer. In the West, as the influences of the changes caused by Internet have begun to be felt, it seems to be evident that the roles of the players in the scholarly communication process system are merging. At the same time the types of intermediaries between the writer and reader of scholarly information have become more multiplied and information contained in primary and secondary sources flows through several alternative channels. New channels and new intermediaries co-exist with the old, making the whole process a richer and more complex one.

The situation points to a reconfiguration of the production and dissemination of knowledge. Just as the roles of publishers and librarians are merging, so also are the roles of primary and secondary publishers getting blurred. As more and more traditional bibliographic databases get increasingly augmented today with the full-text resources they once only pointed to, it is difficult to differentiate between publishers of primary documents and secondary sources of information. The National Federation of Abstracting and Indexing Services in US has responded to the situation by welcoming publishers of journals, books, and other primary resources to its membership.

Alternative Scenarios

Although there is unanimity in the belief that we are undergoing a paradigm shift, there is no agreement on what will emerge as the predominant model. Several alternative models or scenarios have been suggested — the Public Publishing Model, National Subject Database Model, the National Utility Model etc. Under these models, information is no longer maintained in the way it has been for over 350 years. The convention of using the scholarly or scientific journals was based on the paper model of publishing. Articles were bundled together into issues for the convenience of the printer and for distribution. And journals existed to draw together scholars or scientists into the editorial process. But these conventions are no longer required. The article can easily become the base unit of distribution.

The Public Publishing Model

Several individuals, associations and agencies including the Association of Universities and Colleges of Canada have put forth this model as an institutional response to the rapidly increasing serial prices.[15] The model proposes that university presses publish much of the output of university faculty via the Internet. Each university would create a number of scholarly journals mount them on university computers and make them accessible at no or relatively low cost — somewhat along the lines of the OPACs which they make available. The libraries, with their experience, would collaborate with university presses in doing so. In some ways this model is already developing as faculty members begin publishing electronic journals from their departments and universities.

The publication of an electronic journal, the Columbia International Affairs Online (CIAO), is an example of the collaborative structure now developing. As Kate Wittenberg, the editor, explains :

> "It is a truly collaborative publishing project, incorporating shared responsibilities and skills of the Press, the libraries, the computing centre, and the faculty. It is difficult to imagine such a model in the print publishing world, where the roles of content producers, designers, and disseminators are generally seen as less collaborative and more discrete. The Press provided editorial-acquisitions skills, the organization and structure of the project, as well as most of the content; the computing center's technology staff provided the site design, markup of content, the server, the security system, and technical support; the Press provided marketing and sales staff and infrastructure; and the advisory board of scholars and librarians provided guidance and advice concerning content, organization, pricing structure, and overall direction for the project."[16]

At other centres, the responsibility has been squarely placed on the libraries.

The National Database Model

Another model suggested is an aligning of publishing along subject lines, particularly by scholarly societies such as IEEE or American Economic Association. The databases of these learned societies could include all literature and datasets in their respective fields, thus constituting valuable archives and resource centres. This model could co-exist along with the public publishing model. The advantage of this model could be the development of search engines and directories specially designed for the needs of the discipline. On the other hand such monolithic databases may not be conducive to alternative perspectives in the respective fields, may concentrate too much power in a few hands and may restrict interdisciplinary research and cross-fertilisation of ideas.

The National Utility Model

Since locating information will be more critical than owning it, it is predicted by some that national utilities such as OCLC or RLG who already have bibliographic and holdings data will extend their reach and provide directory and distribution services via their own networks or through the Internet. While editorial and quality control functions would still be retained by the publishers, distribution and billing would be through the utilities.

In a slightly varied model, the utilities would collaborate with subscription agents or jobbers to develop the distribution channel. Still another variation is the collaboration between current indexing and abstracting services with publishers.

Opportunities

In India, opportunities for such collaborative projects are beginning to appear, and publishers and librarians can work together to achieve their common goal of meeting needs of scholars for information. Some illustrative ways of collaborating are :

1. Experimenting with electronic formats for information resources — not just CD-ROM format as in the case of Seminar, Mumbai telephone directory and Income Tax Rules and judgements but also as electronic information, which can be hosted over institutional LANs. Standard reference materials, textbooks, journals, etc which are referred throughout an institution are the best choice for this option.
2. Similarly, identifying a group of Indian journals for creating a full text source on CD-ROM formats as aides to document delivery on the lines of ADONIS, or Ovid's Nursing Collection seems to have potentialities for both the national and international markets.
3. The book trade and libraries can work together to develop the concept of shared ownership of materials which may be made available on a network for a group of libraries. City level networks will take on a new role with this kind of activity.

These activities will require close collaboration between the publishing industry and libraries, with each party providing their unique skills to make the new product useful and relevant. Several issues will need to be resolved such as :

- Responsibility of selection
- Royalty to authors
- Sharing of expenses and profits
- Licensing arrangements and fee structures
- Marketing and pricing arrangements
- Ownership issues.

The process of seeking solutions will be a learning experience for both groups which will be mutually beneficial.

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Teaching by the Students for Quality Education

P. Dhanavel*

"Education without understanding is not only useless but also harmful to itself".

Introduction

Concern is often expressed in different forums that the quality of education has gone downhill. Blames, and flames too, are thrown on the teachers, the students, the curriculum, the examination system, the administration, the politicians, and wherever there is least resistance. Half-hearted, ill and well-conceived programmes are launched from time to time by various agencies to straighten the spinal cord of Indian education. Reforms in the syllabus, examination system, medium of instruction, administration, and many other spheres have, however, had little impact on the quality of education. Unfortunately, even the once glamorous and prestigeous institutions are increasingly falling down and falling down like the London Bridge in T.S. Eliot's *The Wasteland*. Is there, then, no hope for quality education in the wasteland of Indian education?

Quality Education

What is quality education? Why does it remain a dream? How can it be achieved and promoted? Education is that which brings out the infinite potential dormant in ever person who attends an educational institution. This is what all great educationists, like Swami Vivekananda and Mahatma Gandhi in the East and, John Dewey and A.N. Whitehead in the West, have proclaimed the aim of education to be Quality is that which characterizes excellence, fineness, superiority, accomplishment, and similar concepts. Then, quality education is that which helps men and women realise their self-capacity in the best possible manner for the best possible uses for them and the world.

Sadly, however, the contemporary education in India at all levels, from the primary to the tertiary, is far below the standards expected of it. Save those fortunate few institutions that still maintain some standards somehow, quality education has remained a dream. Why? Any number of reasons can be given, in fact, have been given, by all kinds of authorities and non-authorities. All of them boil down to two fundamentals : (a) the teachers do not teach, and (b) the students do not learn. That is why the National Policy on Education (1986) document stated that if the teachers teach and the students learn, all will be well with the Indian education. Then, if quality education has to be achieved, the quality of teachers and students has to be improved at any cost. How can it be done? How can it be done continuously and constantly?

The task of education can be performed and quality education achieved only when, repeat only when, the basic principle of education is understood, appreciated, and upheld by both the teacher and the taught. The basic principle is that the teacher is a teacher because he wants to teach and the student is a student because he wants to learn. If this fundamental principle is disregarded by either or both, no education, let alone quality education, can take place. Whatever reason that may be attributed to the sorry state of affairs, both the teacher and the taught have burnt the invisible bridge between them. They stand on the banks either side of the river and shout at each other or just shut their eyes and ears.

What, then, are the ways out of the present problems? One solution, a very strong one, is that some of the teachers who are committed to their profession need to become vocal and articulate their solidarity for a sustainable education. The purpose is not to start accusing others for their lethargy, indifference, or even hostility, but to stand as a model for the students and the prospective teachers. The committed teachers can share their sorrows and successes in their classrooms. These experiences will be the signposts for the new generation of teachers who are willing to carry out their tasks and yet are afraid to offend their "superior" colleagues, especially those irresponsible and self-seeking bands who sell their profession for their selfish motives.

An Innovative Experience

Every hostile environment can be turned into a fertile land of opportunities for saving and serving the profession. Tripura is a landlocked state struggling in the thick of problems in every area of life, including education. But an unimaginable and innovative experience of learning could take place at the Department of English, Tripura University. The students themselves could teach a text collectively and learn in the best possible manner. The present au-

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*Department of English, Tripura University, Agartala-799 004.

thor conceptualized the project and executed it successfully and satisfactorily with the second year students of M.A. English literature recently.

Background

The author was teaching Mark Twain's novel *The Adventures of Huckleberry Finn,* one of the prescribed texts in the paper on American literature. Though it is a world famous classic read with pleasure by all readers of all ages, he found that the M.A. students had little interest in reading the novel. He was aware that the students would invariably depend on some popular guide books available in the market, mug a few possible essays, reproduce them in the examination, and pass their examination with "flying colours". He had seen this happening year after year. As usual he gave a few introductory lecturers on the nineteenth century American novel, the Frontier, and Mark Twain. Thereafter, he started discussing the novel chapterwise and came up to Chapter Eight, when the month-long teacher's strike was called for. He knew that the strike would prolong for an indefinite period, as he had learnt about the teachers' strike in the national capital for more than a month just a few months back. Nothing had happened, then. Who would listen to the teachers' demands when the people have become very unhappy with the teaching fraternity for its indifference to quality education. It is well-known that the people have always put up with the worst kind of politicians but never the shirking and striking teachers, for teaching is still and will ever be the noblest profession of not only man-making but also nation-building.

The Catalyst

Just a day before the strike, that is August 10, 1998, the teacher went to his class but did not like to proceed further with the novel because he would have to re-do the same. So he welcomed the students to ask any questions on the novel upto that point. A student shot up : "Why does Huckleberry Finn run away from both Widow Douglas, his guardian, and Pap Finn, his father?" To answer the question, the teacher invoked Leslie Fielder's monumental critical work *Love and Death in the American Novel* and said there was a general tendency among the American men to escape from the clutches of civilization. He drew the attention of the students to such archetypal escapists as Natty Bumppo and Chingachgook in Fenimore Cooper's *Leather-Stocking Tales,* Ishmael and Queequeg in Herman Melville's *Moby-Dick,* and Santiago and Manolin in Ernest Hemingway's *The Old Man and the Sea.* Then, he referred to Mark Twain's own view of civilization as corruption, caused by marriage, family and women. In this context, the teacher casually mentioned that "men run after women before marriage and after the marriage the women run after the men to keep them under control and maintain the family, and thus civilization". There were peals of laughter among the girls who, then, had a grim look at the boys. The class overflowed with joy beyond imagination.

Planning

When he returned home, the teacher was wondering how he could have classes in the same joyful spirit frequently. After the strike was withdrawn, he went to his class to find a few students only. The media did not cover the teachers' strike elaborately and so even the withdrawal of strike was given a lukewarm announcement. Consequently, the attendance was thin, making the teacher worry about what he should do for them. As he was sitting on the chair contemplating what to do, a new thought occurred to him in a flash : why not ask the students to teach *The Adventures of Huckleberry Finn* from Chapter Nine? Then he floated the idea hesitantly. The students were thrilled by the idea but none offered to begin. Fortunately, there was a boy with a copy of the novel. The teacher asked him to read chapters Nine and Ten and give the lecture the next day. As per the plan, each student would discuss two chapters a day in an hour. The student would narrate the incidents and then highlight certain aspects of the novel with reference to plot, character, theme, imagery, language, satire, humour, and so on. The student would take about forty minutes and the rest of the hour would be devoted to discussion by the students and supplement by the teacher. At the outset, the students were informed of the purpose of the exercise. If a student would read at least two chapters of the novel he or she would be tempted to read the entire novel. Those who gave in to the temptation might start reading the other works of Twain as well as other authors. If they realized that reading is a pleasure, they might make it a habit for life.

The Beginning

The first student-teacher began his lecture in right earnest. He recapitulated what had gone before and did chapters Nine and Ten. He recounted the main events and discussed their significance from different angles. Wherever possible, he read out the relevant extracts from the novel, especially those full of Twain's humour. He ended his lecture in about thirty-five minutes. It was the first day. So the students were less willing to ask him questions. The teacher, then elaborated the points further and added a few more points. He appreciated the student for his serious and sincere attempt. A never heard of phenomenon, at least in this part of the world, had occurred. This boy became the coordinator for the entire project. There was only one copy of the book with the students. He circulated it among them for the subsequent classes. He maintained a small note-book for writting the programme : who would speak on what on which day and the like. He kept the board clean and wrote the name of the speaker on one corner every day. He consulted the teacher whenever there was any problem. When somebody wanted to have a change of date and or chapters for their convenience, he managed all of them patiently and cheerfully.

Chapter 13

Assignment of chapters upto Chapter Twelve was not a problem. Chapter Thirteen, however, created a stir. No one wanted to take up this chapter. When pressed for explanation, the students expressed that it was an unlucky number, though all of them were Hindus. Poor English literature had affected them positively. Then, the teacher did this chapter for them. He made use of the occasion for explaining how each belief system was different from one another.

A Spellbinding Lecture

The lecture sessions continued regularly. Each speaker took about thirty minutes or so. Invariably, the chapter heading and main points were written on the board and discussed one after another. Except for a few questions there was not much of discussion from the students' side. The teacher asked them a few questions and kept the discussion alive as far as possible. Then came the spellbinding lecture and the liveliest discussion. The girl who dealt with chapters Eighteen and Nineteen had done her homework very well. She used the board effectively and paced the hall like the hero in a folk drama. Not a little sound of disturbance was heard anywhere, even though the fans were out of order for that particular day. Every one was absorbed in the lecture, discussion became unusually lively because the student teacher had glorified the elopement of Sophia, the Grangerford girl with Harney, the Shepherdson boy. Some of the students strongly disagreed with the speaker's interpretation. Actually, in her enthusiasm, the speaker had not seen the irony of Sophia's and Harney's love, which resulted in the death of most members of both families due to the indiscriminating shooting that followed. The students had become vociferous but the speaker tried her best to explain her stand. Although they were all arguing fiercely, there was not a trace of anger or unhappiness. On the contrary, they were all full of smiles.

It was time for the teacher to intervene and set things right. Initially, he defended the speaker highlighting how well she had performed. By a series of questions, thereafter, he enabled the students to identify the irony. He had almost nothing to add since the speaker had covered all points adequately. However, the teacher's need to maintain his so-called superiority compelled him to think deeply. While unfolding the irony of love, he concentrated on the names of the characters : Sophia means wisdom; Harney was considered to be an abbreviation of harmony but later found that it could mean brainy; Shepherdson refers to the son of a shepherd, that is, Jesus Christ; and Grangerford was related to grandeur but again later realised that it could mean a farmer who could cross over differences of opinion. What happens in the episode of the Grangerford and Shepherdson feud is that hatred and enmity for each other destroys these two families. The elopement becomes the cause of this final destruction. After this explanation, the students could understand that Twain had vehemently satirized the empty love of these Christian families. Again the lectures continued smoothly with some discussions and supplements.

To Hell in English

The student who discussed chapters Thirty and Thirty One surprised everybody by her determination to use English, even though she had some difficulty in speaking fluently. She fumbled for words and often said "what to say?" The teacher was patient for about five minutes and then suggested to the student to use her mother tongue, if necessary, so that the listeners would not lose interest in her class. But she did not change her medium. She went ahead doggedly in English with long silences and broken sentences. The teacher's worry increased because the speaker was dealing with a very important chapter, that is, chapter Thirty One where Huckleberry Finn faces the major dilemma about his loyalty to Jim. However, the teacher did not interfere any further until she closed her lecture with a heavy sigh of relief. Surprisingly, the students did not show any sign of tedium, mostly because the student-teacher's voice was childlike and she was able to convey her views with some clarity. The teacher, then, appreciated her for her determination to go to hell in English, referring to Huckleberry Finn's decision to go to hell in Chapter Thirty One for the sake of Jim, the runaway slave. All students recognized the speaker's sincere efforts to communicate in English for the whole period.

A Fittig Close

Again the student teaching continued regularly except for one break. A student who was to do chapters Thirty Four and Thirty Five did not turn up due to some problem at home. The teacher filled in the gap with his own reserve. The student who gave the spellbinding lecture was asked to deal with the final Chapters which she did efficiently. This time she was more careful to avoid any miscommunication. She answered all questions from the students and thus made the discussion very fruitful. A review of the whole novel was done by the first student who began the series. He discussed many aspects of the novel going beyond the year 1884 when *Huckleberry Finn* was published. His presentation also had improved considerably. Now one more student expressed her desire to give a lecture but there were no more chapters. Hence, the teacher asked her to choose any specific topic related to the novel. She spoke on the character of Huckleberry Finn and explained each and every point clearly with illustrations from the text. Thus came the grand finale of teaching by the students, ensuring quality education.

Problems

There were a few problems to be overcome for the successful completion of teaching by the students project. First, the students were unfamiliar with such an innovative method of learning. They had always been at the receiving end and had never imagined that they could teach a text they were supposed to be taught. Therefore, a lot of persuasion was required. Once a student started, there was no further problem of motivation. Then most students were eager to have a turn. Some students were not interested in lecturing for some reasons which need no mention. Second, there was only one textbook with the students. It may appear to be strange but then truth has ever remained stranger than fiction. The teacher was willing to lend his book, but the coordinating student took care to circulate the book without any hitch, thus enabling the teacher to have his own reading for the supplementary session. Third, the problem of superstition posed a real threat. A little flexibility on the part of the teacher eased the situation. The teacher did not force any student to do Chapter Thirteen because he considered it better not to infuriate the students with his "authority".

Some more problems were there, but nothing serious to stop the project. When a student did not turn up on a particular day, it was made up by the teacher. Change of dates and chapters was managed by the coordinating student. One student was unable to complete her lecture in an hour because the chapters were comparatively longer. She was given some additional time in the next hour. There were some human problems too. These were either ignored or corrected by the teacher privately. Thus, the problems of motivation, textbook, beliefs, timing, and so on were taken care of then and there and the sessions were completed with satisfaction for all.

Conclusion

In the context of the deteriorating standards in education, teaching by the students seems to be one of the best alternatives for promoting quality education. The students get the maximum benefit of learning as also the teacher. When the students get involved in the actual learning process, their power of understanding increases sharply. This understanding is checked and verified when the students share their learning with their classmates. Besides the content, they learn how to communicate their learning. They practice using the English language as well as the board. Owing to this active involvement, they derive a sense of happiness which they would never get otherwise. They also get further motivation to study other texts, both prescribed and non-prescribed, for themselves. When the students work together in a chain, the team and cooperative spirit is developed. The leader of the group emerges naturally.

As the whole project is done under the guidance of the teacher, the interaction between the teacher and the taught increases and a sense of belonging to an academic community is fostered. The teacher acts as a facilitator in all circumstances, never imposing his authority on the students. One of the most promising aspects is that some of these students who might become teachers later on may take up their teaching seriously and may turn out to be good and useful teachers to the future generation of students. Since quality education cannot be given instantly, it has to be cultivated over a long period. In this direction, teaching by the students will go a long way. Such an activity can be contemplated by teachers of all or most of the disciplines for teaching their subjects. Self-education is the best education, whether it is teacher education or general education or technical education. One who loves teaching really will not be able to do any other job. Teaching by the students will help identify prospective teachers and groom them for quality education. No external agency like the UGC and AICTE can accomplish this task on its own. Teachers are the best means for giving and ensuring the best quality education. If the interested teachers devote their time and energy for such a real nation building task, the country will be suitably equipped with real human resources for the coming millennium.

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ECP of PGDHE

Some Observations on IGNOU Programme

D.S. Bhattacharjee*
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Contact programme occupies an important place in any distance learning programme the world over. The main contention behind this is that there is no substitute of human interaction in teaching-learning process, and therefore this component is indispensible in any package of distance learning. Contact programme is more important where course objectives are development of skills and competency. This is particularly true of professional courses. The print media is too inadequate for developing skills and hence it must be supplemented by contact sessions wherein learners get opportunity for face-to-face interaction. Undoubtedly, the scope of skill development is much more under the direct supervision of resource persons.

Considering the potential of contact programme almost all the institutes of Correspondence Courses/ Directorates of Distance Education in Indian universities have incorporated contact classes in some form or the other in their educational programme. While some make attendance to these classes compulsory, others take a flexible approach and keep the option open to learners. As far as IGNOU is concerned, contact sessions are well structured and provided as an inbuilt component of student support system. After the despatch of study materials, regular counselling sessions are organised at the study centre level to give face-to-face interaction primarily to transact the printed study materials and also to discuss any other academic problems encountered by students. Attendance to these counselling sessions is, however, not compulsory.

ECP Defined

Apart from counselling sessions, face-to-face interaction is provided in Extended Contact Programmes (ECP). Extended Contact Programmes, as the name suggests, are visualised as temporal extension of normal contact classes. While normal contact classes are organised for a brief period, Extended Contact Programmes are spread over a slightly longer period to accommodate series of specially designed activities and exercises for achieving programme objectives. In IGNOU, ECP has a special status as a programme component. Mostly provision of ECP is made for laboratory based courses and for courses wherein objectives are development of specific skills and competency. ECP is an integral part of these programmes and weightage in terms of credits are allotted to ECP. Hence, attendance in ECP is compulsory for earning required credits towards completion of degree/diploma. In IGNOU, programmes on Science, Nursing, Computer Education, etc have inbuilt component of ECP.

PGDHE Context

Use of ECP is typical in the context of the Post Graduate Diploma in Higher Education (PGDHE) of IGNOU. It may be noted that this programme has been launched by IGNOU in response to the recommendations of the National Policy of Education 1986 to provide necessary knowledge, understanding and skills to college and university teachers, and is linked to their career advancement. This is a one year diploma programme developed for aspiring and practising teachers at higher education level. The specific objectives of the diploma programme are to enable the students to acquire a perspective regarding the system of higher education in India — its context, functions and linkages with other systems; to develop professional competencies associated with an effective university teachers; and to develop readiness to undertake reforms and innovations in the practice of higher education.

The course structure of PGDHE is presented in Table 1.

Table 1 — Course Structure of ECP

Course No.	*Title*	*Credits*
1.	Higher Education; its Context & Linkages	6
2.	Instruction in Higher Education	6
3.	Higher Education; the Socio Psychological Field	6
4.	Planning and Management in Higher Education	6
5.	Project Work	6

Unlike usual correspondence courses, IGNOU employs multi-media approach for course transaction. The aforesaid courses of PGDHE are transacted through Printed Materials, Academic Counselling, Audio Video Materials, Teleconferencing, Teleconferencing, and ECP

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Analysis of ECP Inputs

In a programme like PGDHE which is primarily aimed at building professional competencies and skills of college and university teachers, the need for an intense face-to-face interaction is not only necessary but also of immense value. ECP consists of a series of inputs spread over a period of 10 days and is a compulsory component of the diploma programme.

The thematic division of ECP sessions is as under :

1. Overview
2. Relevance of Higher Education
3. Appraisal of Major Educational Policies
4. Professionalism in Higher Education
5. Lecturing Skills
6. Course Design
7. Meet the College Principal
8. Visit to an Institution of Higher Learning
9. Group Project
10. Individual Project
11. Needs and Problems of Students.

ECP is generally held at regional centres where participants have face-to-face interaction with the local resource persons. However, as substantial part of the programme is conducted through teleconferencing mode, participants can also interact with faculty members and experts stationed at headquarters. Some overvations will now be made on the instructional components of ECP which are based on the experiences of organising ECP at IGNOU Regional Centre, Calcutta on successive academic sessions and also on the reactions of participants.

Teleconferencing

During the first five days of the ECP, business is transacted during the first halves by way of teleconference. It is done through a dedicated channel known as Training and Development Communication Channel which IGNOU holds in collaboration with ISRO. Live programmes are conducted from IGNOU studios which are transmitted to INSAT-2C and it beams the signals down to all the receiving stations spread across the length and breadth of the country.

Discussion on selected topics is held through this mode. A panel of experts speaks on the topic and then by response to questions sent by the participants at the receiving stations through telephone/Fax. The idea of having this mode for ECP was to make the benefit of the expertise of some eminent faculty members available to all the learners. This also gives the scope to the learners to interact with the faculty at the headquarters.

While the exposure of the learners to this hi-tech aspect of instruction has been quite a thrilling experience for all of them, there is much scope for improvement as far as the contents/organisation of the teleconference is concerned. The topics covered were basically the repetition of what is contained in the printed material, and so they could not provide additional enrichment. As regards the course design activities the learners unanimously felt that there was need to integrate actual exercises undertaken by participants with teleconferencing, otherwise sessions are treated in isolation and they do not serve the desired purpose. The methodology of teleconferencing should be reviewed thoroughly; coordinating queries and responses takes a large chunk of time and hence elaborate telephonic conversation should be discouraged. Fax should be extensively used as a means of communication; quality of graphics used needs substantial improvement.

Course Design

Teacher's at the institution of higher learning (i.e. the target group of PGDHE) are used to teach topics based on syllabi framed by designated committees at the universities. They generally do not get a chance to participate at the stage of course designing. It has been quite innovative on the part of School of Education, IGNOU to have this activity as a component of PGDHE and it constitutes a major part of ECP.

While the objectives of PGDHE programme justify inclusion of course design, it is not clear what level of mastery is expected to be achieved by individual participants during ECP. For understanding the intricacies of course designing process, one needs to have a strong foundation on pedagogy, philosophical and social base of curriculum planning, systems approach, taxonomy of educational objectives, instructional process, evaluation methodology etc. As most of the participants belong to disciplines other than Education, they get confused when these concepts are introduced in quick succession. Perhaps, it is too much to expect that each individual participant will develop desired competency in course designing skills in just four sessions which are assigned during ECP. As a result, the situation demands a compromise by taking recourse to a slip-shod approach to complete the activity. Besides, guiding course design activities of individual participants single handed by one resource person is not only difficult but also impractical. Also the process of course designing itself requires involvement of various kinds of personnel which implies that it is not an individual activity. This is quite often pointed out by participants, and quite justifiably, so there is a strong feeling that course design, being so complex an activity, should begin at pre-ECP stage and can be finalised during ECP.

Lecture Skills

Developing lecture skills in participants is one of the major objectives of PGDHE programme. Being a distance learning programme, there is room for doubt regarding the scope of distance method in developing complicated skills of lecturing. Normally in Teachers' Training Colleges, the trainees are put in actual classroom situation under direct supervision of a teacher educator for a considerable period of time. IGNOU attaches special importance to ECP for developing lecturing skills. The inputs used are (1) printed study materials containing tips on good lecturing skills, (2) Video-cassettes on lecturing skills, and (3) Simulated lectures by individual participants during ECP. Needless to say, feedback mechanism plays a vital role in developing desirable lecturing skills. Generally in ECP situation peer feedback and supervisors' feedback are used for reinforcement of lecturing skills. However, ECP at Calcutta Regional Centre adopts a more innovative strategy by introducing two additional inputs viz. (1) demonstration of model lecture by a Resource Person followed by discussion, and (2) Video photography of simulated lecture session of individual participants followed by discussion with a three-tier feedback system comprising (1) self (2) peer and (3) resource persons. This strategy seems to be much effective in developing lecturing skills. A 5-point rating was obtained from a sample of 20 participants on their reactions to different strategies for developing lecturing skills which are presented in Table 2.

Table 2 — Participants' Reactions To Different Strategies

Strategy	*Strongly Disagree*	*Disagree*	*No opinion*	*Agree*	*Strongly agree*
1. Printed Material	96%	3%	—	1%	—
2. Video Cassette	77%	3%	18%	2%	—
3. Live demonstration	51%	24%	22%	3%	—
4. Simulated lecture	40%	22%	34%	2%	2%
5. Video photography	60%	14%	10%	15%	1%
6. Combination of all	4%	10%	4%	10%	72%

A combination of all the inputs makes the best strategy. However, participants also opined that PGDHE's main emphasis on interactive style of lecturing holds good only in small size classes, and hence unsuitable for large size classes which is typically the pattern of colleges and universities in India.

Individual Project

A component of PGDHE consists of individual projects for consultation of which one session of ECP is assigned. Obviously, the time allotted is too inadequate to give individual guidance, especially when the students do not have any foundation in methodology of educational research. To make the session fruitful, pre-ECP activities on the part of participants should be vigorously insisted upon. However, this activity at the ECP provides the necessary launching pad for the project work.

Group Project

The excellence of an institution of higher learning depends not only on the individual brilliance of the teachers but also on teamwork. More often than not it is observed that while we may be quite good as individual performers, we may not emerge as a good team. Such instances are no exception for colleges/university departments. In order to inculcate the spirit of teamwork among the teachers, the activity of group project has been envisaged as a component of ECP. However, the activity needs to be structured with great care to see that the objectives are fulfilled. Time becomes a very big constraint and what generally happens is that the project topics are identified through a series of brainstorming sessions which is quite an enjoyable experience for the participants but problems crop up at the execution stage. Interestingly, the real empediments to the issue of emergence as a team get surfaced. So again a balance has to be struck keeping in view the constraints of time and relative priorities of different activities. Normally the outcome of the activity is displayed in the form of charts.

Visit to a College

To give a first hand experience of an institution of higher learning, participants are made to visit a college during ECP. This activity is very useful as participants can get a broad overview of the functioning of an institution through real experience. To make the activity more effective it is preceded by a briefing session wherein the resource person explains the aspects of institution that should be looked into and a format is supplied. For the ECP held at the Calcutta Regional Centre of IGNOU, Ramakrishna Mission Residential College, Narendrapur was chosen primarily because it is residential. The participants thus get to see the operational aspects both at the college as well as at the hostel. However, one operational drawback of this activity is that ECP is mostly conducted during vacations (so that the teachers do not face any problem in getting leave from their parent institutions) and hence the visit does not take place when the institution is fully functional.

Meet the College Principal

This activity is quite pertinent to get a holistic view of institutional management. It can be organised in two ways. First, by using a video cassette produced by IGNOU for triggering discussion and second, by conducting live session of interview with a principal of a local college. If the second alternative is chosen, care should be taken in the selection of principal so that wider aspects of institutional management could be covered. It has been strongly felt that exposure to the administrative issues of a college is essential for the making of a good teacher.

Participants' Needs and Problems

One complete session is assigned to discuss the needs and problems of students. The main objective of this session is to get feedback from students regarding PGDHE programme as a whole. Here the issues are divided into two categories viz. administrative problems and academic problems. Table 3 shows the types of problems raised by students in successive years :

Table 3 — Types of problems discussed in ECP

	Types of problem		
Year	*Administrative*	*Academic*	*Miscellaneous*
1994	70%	14%	16%
1995	75%	11%	14%
1996	84%	5%	11%
1997	91%	2%	7%

It is clear that there is a heavy concentration of administrative issues which are discussed in this session. While discussion on academic problems is negligible, most of the discussion centres round non-receipt of study materials, payment of fees, default in assignment submission, Term-end examination, timings of ECP, problems related with study centre etc. Obviously, all these issues are remotely related to the business of ECP and, therefore, academic utility of the session gets considerably reduced. Further, if the administrative problems are sorted out by the university, there is virtually no need of a special session to discuss the problems of students. The academic problems could be easily taken up in appropriate academic sessions.

Experience to Cherish

Before we conclude we would narrate the experience which according to the participants was most rewarding. We have already made a mention about Videography at the section on Lecture Skills. The participants felt quite excited about it and they were able to identify their own mistakes, particularly in respect of gestures delivery, body language, etc.

However, according to them the most rewarding experiences were the 'Panel Discussion' and 'Role Play'. These were done in respect, of 'Relevance of Higher Education in the Context of Major Educational Policies of the Country'. Particularly, during the ECP of 1997 there were five panelists who spoke on the topic and covered the following areas respectively : Appraisal of the major policies, vocational courses, rural universities, autonomous colleges and open universities. The programme was compered by an expert in the area of Education. The discussions were followed by comments/observations by the participants which were quite thought provoking. As far as 'Role Play' is concerned the participants were made to play the roles of the VC of a university, Education Secretary and a student leader in respect of a situation of a crisis. The participants unanimously felt that these were the most enriching experiences of their ECP.

Conclusion

It is evident that all the inputs of ECP are not equally effective. Evaluative studies are called for to make an objective assessment of instructional components of ECP. There is also the need to share the experiences of ECP among the regional centres. It is only then suitable modifications can be introduced to make ECP more meaningful.

Last but not the least IGNOU must seriously take up with the UGC the issue of giving career advancement benefits to the participants after successful completion of PGDHE and also of proposing the creation of facilities at the colleges/universities so that the fruits of the PGDHE can be suitably utilised.

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Bar Council of India Vs U.G.C.

Injustice Upon Law Teachers of Maharashtra

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University Grants Commission (UGC) is a statutory body, mainly concerned with the release of grants to the universities and framing of rules regarding the maintenance of standards of higher education. The Bar Council of India (BCI) is also a statutory body specially constituted for the legal profession and legal education under the Advocates Act. In case of any controversy about any subject of common jurisdiction of both the authorities, the general rule of interpretation i.e. 'Special Law will prevail over the General Law', will be applicable and the rules of the Bar Council will prevail over the rules of the UGC. Unfortunately, the UGC does not take any cognisance of the BCI, simply because the UGC has control over the funds. This has resulted in a long standing conflict of jurisdiction between BCI and the UGC and the consequent injustice to the law teachers in general and the part time law teachers in particular, specially in Maharashtra State.

Both the bodies have made their respective rules regarding the minimum qualification for law techers, which are at variance with each other. The UGC is however bent upon imposing its own rules by ignoring the rules of the BCI, the directions of the Supreme Court and recommendations of Pay Review Committee of Central Govt. (Rastogi Committee).

A word about the special situation in Maharashtra. Grant-in-aid facility was not available to Law Colleges in Maharashtra and it was for the first time awarded after the Judgement of Honourable Supreme Court of India in *State of Maharashtra* Vs. *M.P. Vashi, (AIR 1996 P. 1).* Prior to it, almost all the law colleges in Maharashtra except only one college i.e. Government Law College of Mumbai, were run by the private institutions with the help of part time or contributory lecturers from the practising lawyers. At that time, the condition of B Plus marks was not there and the appointments of Law Teachers were being made as per the rules and norms framed by the Bar Council of India and the Ordinances of respective universities.

Accordingly, since last many years, the faculty of law is run by such teachers including full-time, part-time or contributory lecturers. They are not only teaching but they are members of Board of Studies, examiners & paper setters etc. Some of them have 15 to 20 years of such service. They are in considerable numbers. The have sufficient experience of teaching and professional skill. They were serving on very nominal remuneration (as observed by the Supreme Court, the Principal of Law College, Latur was getting Rs. 400 to 500 p.m.). Now when the grants are released, they have been declared unqualified simply because they are not holding B plus marks in LL.M., though they passed it long back when the concept of B plus was not there at all.

Since 1997-98 onwards the UGC has awarded grant-in-aid facility to the law colleges in view of the Judgement of Honourable Supreme Court and imposed the condition of B Plus marks & NET/SET as a minimum qualification for the appointment of law teachers. Therefore, a number of such teachers, who are serving either on part-time or contributory basis, are held to be unfit for continuation as full time lecturers. Hence great injustice is being caused upon such experienced senior teaching staff members whose students are qualified simply because they have obtained B Plus marks.

Directions of Supreme Court

The direction of the Hon. Supreme Court in this regard is very specific and clear but the UGC does not follow the same. Since the UGC was one of the parties to the above referred case, its compliance is binding on it and non-compliance may amount to disobedience and contempt of court.

The relevant para (19-E) is quoted here,

> "Government shall ensure... Steps shall be taken to ensure that the aided institutions abide by all rules and regulations of the aforesaid authorities (means BCI) for recognition and affiliation including such of those rules and regulations in the matter of recruitment of teachers, staff, the conditions of service, syllabus, standard of teaching and discipline. In the context the Bar Council of India Rules, Part IV, standards of Legal Education and Recognition of Degrees in Law for admission as Advocates should be the guiding factor."

**Jt. Secretary, Maharashtra State Law Teachers Association, c/o Principal, Law College, Nanded.*

Rules of BCI

The Bar Council of India has already framed the rules about the qualification of law teachers, which do not include the condition of B Plus. The relevant Rules are quoted here.

> **Rule 12 :** Full time teachers of law including the Principal of the college shall ordinarily be holders of a master's degree in law and where the holders of master's degree in law are not available, persons with teaching experience for a minimum period of 5 years in law may be considered, part time teachers other than one with LL.M. Degree shall have a minimum practice of 5 years at the Bar.
>
> **Rule 13 :** The teaching load of full-time and part-time teachers shall be according to the norms prescribed by the UGC from time to time.
>
> **Rule 14 :** The salaries paid to the Principal, full-time and part-time teachers shall be according to the scales recommended by the UGC from time to time.

Another important aspect of the problem is that, condition of B Plus was first imposed in the year 1989, which was implemented from 1991 by UGC. But the UGC did not consider the fate of the law teachers, who had done their postgraduation prior to the introduction of B Plus condition and simply imposed it on all resulting in great injustice to the old experienced law teachers, who were already in the teaching profession.

Many representations have been made to the Bar Council of India and the UGC in this regard. So far as Bar Council of India is concerned, it has clearly supported the grievance of law teachers and even passed a resolution on 19th August, 1997, confirming its previous Rules and has requested the UGC to exclude the law teachers from the condition of B Plus, but the UGC does not listen to the Bar Council of India, though the Bar Council of India is the final statutory authority under the Advocates Act, so far as the law education is concerned and hence the rules of Bar Council of India ought to be followed.

Recommendation of Rastogi Committee

The Rastogi Committee (Pay Review Committee) accepted the above genuine grievance of the law teachers and recommended in *University Today*, dated 1 May, 1998 :

> "For professional courses like Medical, Fine Arts, Law Education, Social Work etc, a separate exercise will be undertaken to look into the requirements for their recruitment (qualifications and work experience) in consultation with professional councils like MCI. BCI, NCTE and professional bodies. The Pay Committee has left this task to the UGC. Lateral entry is very much desirable in such professional courses."

As for the question of part-time teachers, Rastogi Committee has left to the UGC to take steps to evolve suitable guidelines. The UGC has recommended as follows :

> "The court decisions regarding regularising of part-time teachers have been used to regularise teachers who do not meet the required minimum qualifications for appointment. This should be safeguarded. Hence, part-time teachers should have the same qualifications as full time teachers. They should be given all proportionate benefits."

The committee has also recommend,

> "the minimum requirement of 55% should not be insisted upon for teachers... for the existing incumbents who are already in university system. However, these marks should be insisted upon at the entry point of lecturers."

Here, the Committee has specifically used the term University *'System'* and not *'Service'*. The university system includes all academic affairs of the university including teaching, framing syllabus, conducting examinations etc. Therefore, those part-time law teachers who are not only teaching but framing syllabus, conducting examinations and running the whole Faculty of Law since many years may not be held disqualified simply on the ground of B plus marks.

In view of above facts and circumstances and particularly in view of the directions of Supreme Court and recommendations of Rastogi Committee, the UGC and Govt. are requested to make necessary provisions as follows :

i) the directives given by the Supreme Court of India in para 19(E) of its Judgement reported in AIR 1996 P.1, may kindly be obliged by following the rules of Bar Council of India in the matter of appointment of law teachers etc, particularly, the condition of B Plus (i.e. 55% marks) and NET/SET may be exempted, or, at least,

ii) Such condition may be waived to the extent of the law teachers who were already in the university system as on part time or contributory basis, prior to the introduction of B Plus condition imposed by the UGC, with postgraduation in law by securing 50% of marks.

Science and Survival

Professor C.N.R. Rao, President Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, delivered the convocation address at the 141st annual convocation of the University of Madras, Chennai. He said, "The real dichotomy in India is that on th one hand, science has to be used to solve the very basic problems affecting human beings, and on the other, it has to be employed on a competitive basis to develop advanced technologies. At no time in the history of humankind has a democratic country faced such a challenge." Excerpts

The relevance of science to the future of society is considerably more far reaching than the influence it has had on human affairs in the past. Some of the pressing problems of society today are related to the increasing population pressure, a rapid decline in the quality of global environment, depletion of natural resources, increasing poverty, hunger and illiteracy in many countries and regions of the world. Solutions based on science and technology are likely to provide remedial measures to some of these pressing problems and yet science and technology as we understand today, are not available to a vast human population. It is essentially in the advanced world that science and technology have contributed to individaul fulfilment, the well-being of communities and to the health of nations. A high percentage of the human population does not understand science or its utility and potential for economic and social development. There is a tendency to get impressed with certain technological inputs that may bring in superficial prosperity, but a proper understanding of technological innovation and of the way science and technology are related to society is very important for real progress. Such an understanding is retarded today by the barriers impending the sharing and the use of scientific and other knowledge necessary to make decisions and choices. They include poor education, lack of exposure to science in the formative years, inadequate grasp of science in the general public (specially politicians) and non-availability of proper facilities for training. Poorly endowed laboratories and teaching institutions (for those already trained) and isolation of scientists hinder full participation of even the educators and scientists.

Problems in the Next Century

As we approach the 21st century, science will have newer venues and challenging opportunities, but we will also be facing unprecedented problems of human population and migration, accompanied by an increasing divide between us and the advanced countries. For example, we in India will start the new century with a population of a billion and the variety of problems directly or indirectly related to his vast population. These include food security, malnutrition, lack of adequate shelter and basic amenities for providing health and education to all. It is truly sad that after fifty years of independence that we are still a backward country with malnutrition, poverty and disease afflicting a majoritly of the citizens. Illiteracy and obscurantism are dominant. The common citizen is essentially oblivious of developments in science and of the factors responsible for economic development in India and elsewhere, being mainly absorbed in day-to-day chores of seeking a livelihood. The scientific community has an obligation to serve humanity, keeping in mind the need for a cleaner environment and better quality of life for a vast majority of the population which has hitherto been denied. There is much to be done in inculcating the right attitudes in the citizens and in ensuring that they have the necessary capacity to participate in human endeavours. The few success stories have shown that there can be social progress only with proper education and attitudes, specially amongst women. The real dichotomy in India is that on th one hand, science has to be used to solve the very basic problems affecting human beings, and on the other, it has to be employed on a competitive basis to develop advanced teachnologies. At no time in the history of humankind has a democratic country faced such a challenge.

Scientists who work in laboratories or teach in educational institutions face immense problems. Even in the best of our institutions, libraries are in a pathetic shape. Information technology has not made much headway. There is little (or probably no) computer capability in many of the institutions and people are not connected to the new information highway. The laboratories have poor infrastructure and outdated equipment. The gap between our laboratories and those in the advanced countries is increasing day by day. I do not know of a single university or college in India which is comparable to some of the best in the advanced countries. Minimum infrastructure facilities such as electricity and water are not available in most institutions. Those who perform well in academic or research institutions do so by working beyond the call of duty, making their own arrangements even for electricity and water. While it may not be true of some of the large mission-oriented agencies dealing with space and atomic energy, but 90% of the scientists working in educational institutions and other laboratories face formidable problems on a day to day basis. It is as though the problem will never end. We seem to be standing on the banks of a river whose width is changing everyday. There is no hope of ever constructing a bridge across the river and the other side of the river gets farther and farther.

Scientists in the country find it extremely difficult to keep abreast in their fields. It is not the ability in science alone that matters, but also the availability of information on the spot. Today, it is not enough to be competent, but one has to be competitive. How does one remain competent, let alone be competitive, where information is difficult to obtain? In the advanced countries, most scientists no longer go to the library. They talk to friends, attend conferences and learn about what is happening to-date in the area of interest, more by informal means (or through the computer). In most areas, we have sub-critical strength and we often have to depend on friends elsewhere to have a proper dialogue. Having lived in India and worked for four decades, I have to admit that (even with all the advances we take pride in) most of us face serious problems in pursuing advanced research. If we do not tackle the problem of facilities and isolation, increasing diffidence will develop in the scientific community, which will be difficult to eliminate later.

What Do We Do?

Is there light at the end of the tunnel? While it is easy to be pessimistic, I would like to take an optimistic approach. It is my belief that capacity building for science-based development must be given the greatest importance, for the next two decades or so. In doing so, we should keep in mind what we are good at. For example, there is a considerable fund of empirical knowledge, traditional technologies and crafts. India is also rich in biodiversity, traditional modes of germplasm preservation and the will to live in harmony with Nature. Along with some of these positive aspects, there are features which go against our survival and prosperity. We are poor in resources for high science and in our awareness of intellectual property rights. We do not have the means or mechanisms to bridge the gap between the advanced countries and ourselves. Even where intellectual capital is available, the infrastructure in areas such as energy, transportation and communications is not satisfactory. A task that can probably be accomplished with modest investment is to network all our educational and research institutions and take full advantage of modern information technology. But this alone will not suffice. Remember that even the best of scientists in India find it extremely difficult to do frontline experimental work.

The country should consider education as part of the infrastructure requirement. After all, without a proper education (knowledge) base, nothing else will work. It is important that we do not ignore either the primary or the higher education sector — both need support, and I see no dichotomy in supporting both these sectors of education. There is need to pool our resources to promote select centres of excellence and collaborative research. Some effort has to be made to work closely with the nations of the region and the other third world countries. Global cooperation in science and technology would also be useful for our future development. India is a poor country trying to be advanced in science and technology and the main resource is human. Developed countries should use the intellectual capital of India not just to produce software but also to do collaborative R and D. They could establish high level R & D centres. This would be of advantage to both the countries, to the advanced countries because of the relatively inexpensive, but capable manpower available in India. In spite of the disparity in career advancement structures available to scientists in India, there are still many good people who take up science and engineering and their enthusiasm has to be fully exploited by the country. These people demand only a challenging task and a proper environment to work in, rather than internationally competitive salaries. The 21st century may indeed belong to poor countries like India with a large population. Keeping this in mind, appropriate investments should be made by all concerned in infrastructure development, technology innovation, collaborative R & D as well as basic sciences and engineering.

Capacity building which I referred to requires a holistic approach and includes science education at all levels, training of teachers and motivating people. There are many tasks to be fulfilled if the confidence of the general population and of the scientific community has to reach a level where they can contribute effectively. Another important aspect relates to the problem of attracting young talent to science. The so-called globalization has had some adverse effect on science in India and young people are increasingly attracted to management and commerce, rather than to science and engineering.

The Government should invest a good fraction (say 2-3%) of the GNP in science and technology. At present, it is less than 1 per cent. The budget for higher education has to be increased substan-

(Contd. on page 20)

Science & Technolo - Human Resources

Stock of Science and Technology Personnel by Broad Field of Specialisation

(Thousand)

Field	1950	1960	1970	1980	1985*	1990*	1991*	1996*
Science........Total	134.9	312.8	744.7	1231.9	2202.8	2620.0	3431.1	4390.2
Natural Sciences	76.0	213.3	559.2	967.8	1769.3	2103.9	2912.3	3780.9
Medicine	51.0	75.6	124.8	167.6	271.9	319.9	316.0	366.8
Agricultural Sciences	7.9	23.9	60.7	96.5	161.6	196.2	202.8	242.5
Engineering...........Total	53.1	137.2	429.8	550.8	936.8	1189.2	1420.6	1923.3
Degree Holders	21.6	62.2	185.4	221.4	372.6	454.4	546.7	726.9
Diploma Holders	31.5	75.0	244.4	329.4	564.2	734.8	873.9	1196.4
Science & Engineering....Total	188.0	450.0	1174.5	1782.7	3139.6	3809.2	4851.7	6313.5

Bachelor Degrees Awarded in Major Science/Engineering Fields

(Number)

Field	1974	1984	1987	1988	1989
Science........Total	138905 (90.23)	139019 (86.36)	155288 (84.56)	155776 (84.81)	160635 (84.74)
Natural Sciences	123822 (80.43)	115085 (71.49)	129940 (70.76)	129981 (70.77)	134366 (70.88)
Medicine	10578 (6.87)	15818 (9.83)	17538 (9.55)	18038 (9.82)	17968 (9.48)
Agricultural Sciences	4505 (2.93)	8116 (5.04)	7810 (4.25)	7757 (4.22)	8301 (4.38)
Engineering.......Total	15043 (9.77)	21963 (13.64)	28345 (15.44)	27894 (15.19)	28927 (15.26)
Science & Engineering......Total	153948 (100)	160982 (100)	183633 (100)	183670 (100)	189562 (100)

Source : Science & Technology Pocket Data Book 1995, Department of Science & Technology, Govt. of India, New Delhi.

Master Degrees Awarded in Major Science/Engineering Fields

(Number)

Field	1974	1984	1987	1988	1989
Science.........Total	21083 (91.40)	28294 (91.34)	31642 (87.63)	32731 (88.37)	33280 (87.95)
Natural Sciences	17633 (76.44)	20691 (66.80)	23669 (65.55)	24301 (65.61)	24591 (64.99)
Medicine	2031 (8.81)	4818 (15.55)	5146 (14.25)	5678 (15.33)	5813 (15.36)
Agricultural Sciences	1419 (6.15)	2785 (8.99)	2827 (7.83)	2752 (7.43)	2876 (7.60)
Engineering.........Total	1984 (8.60)	2681 (8.66)	4465 (12.37)	4306 (11.63)	4560 (12.05)
Science & Engineering......Total	23067 (100)	30975 (100)	36107 (100)	37037 (100)	37840 (100)

Doctorate Degrees Awarded in Major Science/Engineering Fields

(Number)

Field	1974	1984	1989	1990	1992*	1993*
Science.........Total	1852 (87.44)	3725 (88.92)	3968 (87.63)	3950 (86.26)	4225 (92.90)	4307 (92.52)
Natural Sciences	1515 (71.53)	2977 (71.07)	3044 (67.23)	2950 (64.42)	3386 (74.45)	3505 (75.30)
Medicine	50 (2.36)	70 (1.67)	132 (2.91)	140 (3.06)	116 (2.55)	128 (2.75)
Agricultural Sciences	287 (13.55)	678 (16.18)	792 (17.49)	860 (18.78)	723 (15.90)	674 (14.48)
Engineering........Total	266 (12.56)	464 (11.08)	560 (12.37)	629 (13.74)	323 (7.10)	348 (7.48)
Science & Engineering......Total	2118 (100)	4189 (100)	4528 (100)	4579 (100)	4548 (100)	4655 (100)

(Contd. from page 17)

tially. As far as science is concerned, an additional annual expenditure of around three hundred crore rupees should be able to improve the basic infrastructure in most educational and research institutions so that they can productively contribute to scientific research, technology innovation and the knowledge base. The Indian industry should eventually be able to provide substantial support for research and higher education. In the mean time, however, the government has to be the instrument of change. It has to be the catalyst and the provider for sometime to come. Besides the government, academicians, industrialists and educators have much to contribute to various aspects of development and in changing the attitudes of the people and of the politicians. Hopefully, such organized effort will minimize the role of bureaucracy and usher in new management and administrative practices. If such things happen, we may make some real progress. There would then be capability in science as well as the necessary confidence to deal with the rest of the world.

Epilogue

Whatever I have mentioned here has to be accomplished in the near future. Otherwise, in this highly competitive world, less and less time will be available in the future to think about the impoverished and the underprivileged. Because of the emerging social and economic scenarios where new situations and problems arise constantly, it is the responsibility of enlightened citizens to reaffirm the importance of science and the knowledge-base, the role of science in Society and the need for government support for science. We should make a case for a minimum, if not for optimal, support for science and education as an integral and important part of our strategy for development.

We will soon be entering a new century and a new millennium. We could use this occasion to prepare a millenium agenda (calendar) for action. Since this task is somewhat difficult, we should at least prepare a national calendar for the 21st century which would list the important tasks to be accomplished with time targets. A typical listing would look as follow :

	Target Date
Investment in science and technology, 2-3% GDP	2005
Safe drinking water for all	2005
Software export : 3-4% of world business	2005
Complete literacy	2010
Eradication of malaria and polio	2010
Food security* and eradication of malnutrition	2015
Leadership in 5 or 10 sectors of Industry	2015
50 Olympic medals	2015
Population stabilization (and slow down)	2020
Economic leader in the world	2025
20 Nobel laureates in science	2025

**Production of over 300/350 million tonnes per annum.*

Let me close by stating that (scientific) knowledge is the common heritage of humankind. It is knowledge that creates wealth although all of us do not have the skill or ability to transform knowledge into wealth. Knowledge is the only treasure of humankind that can provide a possible remedy to conquer inequality and to bring about an acceptable quality of life and a purpose, for a majority of the people of India and of the world. Let us make sure that it is available to all. Let the benefits that accrue from this knowledge reach all human beings.

BANNARI AMMAN
INSTITUTE OF TECHNOLOGY
Sathyamangalam-638 401, Erode District, Tamilnadu

(Approved by AICTE and the Govt. of Tamilnadu & affiliated to Bharathiar University, Coimbatore.)

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CHAIRMAN

Towards Quality Teacher Education

The members of Board of Studies of Education Faculty of eight universities of Gujarat State supported the move of National Council for Teacher Education (NCTE) to have two years B.Ed. course in place of present one year course in a workshop on construction of Curriculum on the basis of NCTE guidelines for quality teacher education. The workshop was organised at B.D. Shah College of Education.

Dr. Daudbhai Ghanchi, an eminent educationist and former pro-Vice-Chancellor of the South Gujarat University, presented a paper on Teacher Education, its concept and need with different aspects of practicals and practice teaching. Dr. Mahesh Yagnik introduced the units of Emerging Indian Society as the part of syllabus for the teachers of 21st century. School Managements, a novel paper that described different roles of Secondary Schools, their teachers and principals for better management was prepared by Dr. Mahendra Chotalia.

The practice teaching and practical work on different fields can be practised only if the B.Ed. course is made of two years' duration, said Principal Dr. Madhusudan Butala, who explained the series of practice teaching and practicals expected by NCTE.

The workshop also recommended elimination of old course and introduction of new syllabus based on the Curriculum Framework for Quality Teacher Education published by NCTE.

Though financial and administrative constrains are there at state government and university level, the syllabus finalised for B.Ed. will be put before each university authority and education department. The books will be written as joint venture of learned professors and published for the reference of teacher educators.

DBATU-Cranefield Varsity Tie Up

Dr. Babasaheb Ambedkar Technological University in Maharashtra State is linked to Cranefield University in U.K. for 3 years from April '99 under Academic Link Interchange Scheme of British Council. Under this scheme, four Experts from Cranefield University will be conducting courses in April '99 at Dr. Ambedkar University. The University is having industry collaborative Advance Diploma Course with the support of M/s Ion Exchange (I) Ltd.

Three faculty members from Ambedkar University every year will be deputed to Cranefield University U.K. for specialised training.

This is a special programme of British Council linking universities for advanced research and specialised training.

Radar Symposium India-99

The Institution of Electronics and Telecommunication Engineers, The IEEE Bangalore Section, DRDO, BEL, HAL and the Society of Electronic Engineers LRDE propose to jointly organise an International Radar Symposium (IRSI-99) during 14-17 December 1999 in Bangalore.The Symposium will provide a forum for academicians, R&D Scientists, Production managers and Users working in Radar and related areas to project and share new challenges, concepts, design, simultion and evaluation methodologies that are emerging in the contemporary and advanced techniques and technologies related to Radar.

The topics proposed to be discussed include Radar Systems; Weather & Atmospheric Radar; Millimetric Radar; SAR/ISAR/ IMAGING RADAR; Tracking & Instrumentation Radar; Guidance & Navigational Aids; Radar ECM/ ECCM; Radar Simulation & Modeling; Modern Radar Trends; Radar Polarimetry; Antennas & Antenna Arrays; Radar Transmitters; Radar sources & Receivers, MIC/MMIC; Signal Processing; Data Processing & Data Fusion; Radar Networking; Automatic Radar Controllers; Radar displays; Target Recognition; Radar cross section measurements; New materials in Radar; Manufacturing technologies; and management of large projects.

Further details may be obtained from Mr. Ananda Babu KVS, IRSI-99 Secretariat, LRDE, CV Raman Nagar, Bangalore-560 093, India. Tele Fax : +91-80-524 2860, 333 7231, Tel : +91-80-524 1959, Email : irsi@lrde.ernet.in

Henry Ford Chair for Biomechanics

The Indian Institute of Technology, Delhi, and the Ford Motor Company are reported to have signed a Memorandum of Understanding establishing the Henry Ford Chair for Biomechanics and Transportation Safety.

This is the second Henry Ford Chair, established at the IIT. The first chair was set up at IIT, Chennai, in March 1998, for Vehicle Emission Research.

The Director, IIT, Delhi, Professor V.S. Raju and the Group vice-president, Asia Pacific Operations and Associations, Ford Motor Company, Mr. Henry Wallace, were signatories to the MoU. Mr. Wallace presented Mr. Raju with the cheque of $1,40,000 as grant towards the chair. The interest from the grant will support a chair for Biomechanics and Transportation Safety and will meet academic and research expenses.

Prof. Raju hailed it as a "proud moment" in which the IIT was associated with the automotive company. He said the IIT had synergy with giants in the Information Technology sector and with this association, a beginning was made in the field of "hardcore engineering".

Delhi Varsity Convocation

Stating that the Government's allocation for higher education was coming under increasing pressure, the Chairman of the National Human Rights Commission, Mr. Justice M.N. Venkatachaliah, observed that universitis would soon have to look towards alternative sources for funds. He was addressing the Seventy-Sixth Annual Convocation of Delhi University. He said universities were facing pressure from two fronts. While the egalitarian sections of society were clamouring for expansion and greater equality of opportunities in the realm of higher education, the problem of resource crunch too was becoming serious.

Another area for worry, according to Mr. Justice Venkatachaliah, was the fall in academic standards compared to Western universities which were "intellectual powerhouses". "There is great respect for quality and standards. But the conditions in Indian universities are uninspiring."

He pointed out that the National Policy on Education, 1986, and the Programme of Action had observed that "excellence in institutions of higher education was a function of many aspects, self-evaluation and self-improvement are important among them". It further recommended setting up of mechanisms for self-assessment of institutions.

But he regretted that most institutions were reluctant to open themselves up for assessment. And according to records available, only 37 universities and 95 colleges have offered themselves for assessment, he pointed out.

Mr. Justice Venkatachaliah noted that the vast speed of changing trends have left the educational system itself gasping for breath. Content of educational curricula will continuously be rendered irrelevant and obsolete with the pace of growth of science and technology, he added.

Stating that owing to social stratification and social inequalities, there had been a marked inequality in distribution of benefits of higher education, he said the sheer staggering size of the mechanism needed to meet the requisite societal expectations for equity in higher education posed a complex problem. "There is a need for innovation and flexibility," he stresed.

The Chief Justice of India and Pro-Chancellor of the University, Mr. Justice A.S. Anand, said that since universities were spending so much, the students too should give back something to the universities. Mr. Justice Anand gave away 111 medals and 50 prizes to meritorious students.

The Vice-Chancellor Prof. V.R. Mehta, conferred degrees on 299 students in Ph.D., D.M. (Cardiology), D.M. (Neurology), D.M. (Gastroenterology), M.Ch. (Plastic Surgery), M. Ch. (Cardio-Thorasic Surgery), M.Ch. (Neuro-Surgery) and M. Ch. (Gastroenterology Surgery). As many as 41,804 other graduates were admitted to their respective degrees in absentia.

Law Graduates Spared of Mandatory Training

Law graduates will now be able to practise immediately after obtaining their LL.B. degree. The Supreme Court has struck down the mandatory training rules that were imposed by the Bar Council of India about three years ago.

Bar Council of India member Dilip Bhosale said, "According to these training rules issued on April 2, 1996, every law graduate was supposed to work as a trainee for one year and attend court for 225 days before he could be allowed to enroll in a bar council and practise. With this decision, the Supreme Court has ruled that graduates will now be able to enroll in bar councils immediately."

IT Application in Libraries

The Indian Institute of Management, Lucknow proposes to organise a programme on Information Technology Application in Library & Innformation Services on May 11-13, 1999.

The objectives of the programme are to equip the Library and Information Managers (LIMs) with appropriate knowhow on : (i) developments in Information Technology (IT) : current trends and future prospects; (ii) IT application in Library and Information Centres (LICs); (iii) strategies for adopting IT in LICs; and (iv) impact of IT on human resource.

The broad contents of the programme include (i) IT state-of-the-art in the context of LICs (Computers : Hardware & Software; CD ROMs; OCR; Bar-coding, Reprographics, Micrographics, AV Equipment, etc); (ii) Multi-media in LICs; (iii) Telecommunications, Networking & INTERNET; (iv) Virtual Libraries; (v) User behaviour, policy considerations and management issues; and (vi) Human Resources & IT in the context of LICs.

The programme is aimed at senior level librarians and information managers interested in modernising their library and information systems and enhancing the range of their library operations, products and services. Senior managers involved in information storage, retrieval and dissemination will also benefit from this programme.

Further details may be obtained from Dr. Roshan Raina, Librarian, Indian Institute of Management, Prabandh Nagar, Off Sitapur Road, Lucknow-226 013 (India).

IGNOU Convocation

The 10th Convocation of the Indira Gandhi National Open University (IGNOU) was held in New Delhi recently at which two inmates of Tihar Jail were awarded graduation degrees for which they were enrolled in 1994 at the IGNOU Study Centre located in the Jail premises.

In his convocation address, Dr. Karan Singh, former Union Minister, said an urgent creative revolution was needed in education and in communication policies. "We need to develop a carefully structured programme on a global scale based unequivocally on the premise that human survival involves the growth of a creative and compassionate global consciousness."

"The spiritual dimension will have to be given central importance in our new educational thinking," he added.

Noted writer Ms. Mahasveta Devi was conferred the Doctor of Literature (Honoris causa) on the occasion.

Prof. W.A. Khan, IGNOU Vice-Chancellor, in his report announced that the University had initiated efforts for professional upgradation of community development practitioners, and for general awareness in such areas as human rights, health, HIV/AIDS and family life, etc. Diploma programme in videography, audio-programme production and audio-video technology are now under development.

Prof. Khan declared that toll-free phone-in-service and voice-mail had been introduced to facilitate students' interaction with teachers. The former, was presently, available in Delhi, Mumbai and Indore. Interactive Phone-in-Counseling started as an experimental project in May, 1988.

The Vice-Chancellor emphasised that IGNOU had taken the initiative in extending its programmes and courses to nationals of other developing countries as well as the large number of expatriate and non-resident Indians in these countries.

While IGNOU took care of the provision of all learning materials to the foreign students, the support services required were provided by the local institutions according to the norms and standards prescribed, Prof. Khan added.

Currently IGNOU programmes are on offer in several centres in West Asia. These include Management Studies, Computer Programmes, Tourism Studies, Library and Information Sciences as well as the Bachelor's Degree programmes.

In West Asia, these are available in Dubai, Abu Dhabi, Sharjah, Al Alin, Doha, Muscat and Kuwait. During the 1998-99 session, 325 students enrolled in these programmes.

Prof. Khan said that the University had extended its programmes to students in Seychelles in collaboration with the Rajiv Gandhi Foundation. The Government of Seychelles had entered into a memorandum of understanding with IGNOU to run the programmes for 1998.

A similar arragement with the Government of the Maldives was being finalised through the Ministry of External Affairs. Negotiations were in progress for launching IGNOU programmes in Nepal, Mauritius, Saudi Arabia and in some countries in Africa, Prof. Khan said.

Community Service as Punishment

Students who cheat or steal at Alabama State University are asked to do some hard time — serving in the community as a punishment.

In November 1998, the university began punishing first-time violators of university policies by making them perform 45 hours of community service. The punishment covers such offences as cheating on a test, forging a professor's signature, and stealing a book from a library.

In the past, punishments would have ranged from a warning to suspension.

"The sanctions we had been imposing weren't therapeutic," according to Vergil Chames, Director of the university's Student Volunteer Services, who suggested the new policy. "Hopefully now, we'll create socially conscious students and better citizens."

So far, about 20 students have been assigned to community-service agencies, based on the organizations' needs and each student's major.

Some students have complained that the community-service punishment is too harsh, but others are counting their blessings.

"I was just so happy that they gave me another chance," says a senior finance major, who forged a professor's signature in order to enroll in a class. "They could've kicked me out of school," he maintained.

The student, who asked not to be identified, was assigned to a social-services agency, where he prepares tax returns and helps unemployed people find jobs.

Awards for Distinguished Librarians

Prof. Kaula Endowment for Library and Information Science, Guntur, awards every year *Prof. Kaula Gold Medal and Citation* to a person who distinguishes himself as a Librarian, Documentalist or a Teacher of Library and Information Science.

The Endowment also plans to establish an institution to further the cause of research in Library and Information Science promoting comparative librarianship and International understanding. It aims to organise lectures at various levels in collaboration with professional organisations for promoting the cause of Library and Information Science. The Endowment invites nominations for the year 1996 for Prof. Kaula Gold Medal.

The Endowment has also decided to institute *Ranganathan-Kaula Award* to be awarded exclusively to Indian Librarians and information specialists. The award is given once in two years.

A scholarship named *Damodar Scholarship* is being instituted by the Endowment to help a needy and competent person to continue studies in Library and Information Science. A yearly scholarship will be offered by the Endowment based on the applications received and selected through a committee set up for the purpose. Persons desirous of availing this scholarship may send the applications with all details to Dr. V. Venkatappaiah, Secretary, Prof. Kaula Endowment for Library and Information Science, 4-22-27 Ithanagar, Tenali-522 201 (A.P.).

News from Agricultural Universities

North West Sociologists Meet

Mr. Kanwal Singh, Development and Panchayat Minister, Haryana called upon social scientists to find socio-economic and cultural solutions for improving the agriculture production. He was speaking after inaugurating the Third North-West Indian Sociological Association Conference at CCS Haryana Agricultural University, Hisar. He observed that the average size of land holding was on the decline, making the land holdings more uneconomic and unviable, and asked them to examine the possibility of reducing population growth rate and suggest changes in the existing land reforms for sustainable development and increasing farm productivity.

Speaking on the theme of the Conference "Crisis of Agrarian Transformation in the North-West India, the Minister said that agrarian transformations had resulted in large scale migration and emergence of new power structure besides exploitation and deterioration in the quality of relationship amongst agrarian classes.

Mr. Singh observed that new norms and ethics must be created for rural people. He lamented the illiteracy and ignorance prevailing among rural women, and impressed upon the need for enlightening them of their social and political rights and duties.

The Minister also highlighted the measures introduced to strengthen and improve the functioning of Panchayati Raj institutions in the State.

Presiding over the function, Prof. J.B. Chowdhury, Vice-Chancellor observed that crisis of agrarian transformation in the north-west India can be viewed from two major perspectives. One, increased form output through improved inputs like quality seeds, fertilizers etc. Second, socio-cultural and economic transformation that ensued in the context of green revolution and globalization. These changes offered numerous challenges and a serious study could lead to an analysis and evaluation of the existing system to set out new policy directions to augment the process of change.

Prof. Chowdhury exhorted the sociologists to suggest ways and means to strengthen the working of the local self government.

Speaking on the occasion, Dr. S.L. Sharma, President, North-West Indian Sociological Association (NWISA) elaborated the theme of the conference, while Dr. S.K. Sharma, Secretary, NWISA highlighted activities being taken up by the Association.

Mr. Ram Bilas Sharma, Minister for Education, Haryana, who delivered the valedictory address declared that Sociology would be included as a compulsory subject in the curriculum of plus two and college level degree programmes.

Mr. Sharma said that India survives on the basis of its glorious social traditions and has been providing ideological leadership to the world at large. Since ancient times, foreigners in their pursuit of knowledge have been coming to India to gain knowledge from our global educational universities like Nalanda and Takshila. He appealed to the sociologists to take up researches in social, cultural, economic, ecological changes in reference to the modern day conditions and work unitedly for the harmonious development of the society.

Dr. Raj Singh, Organising Secretary of the conference and Head of the Department of Sociology, CCSHAU, said that as many as seventy sociologists from different states took part in the conference. On the basis of the 3-day deliberations, the participants resolved to take up researches on the different type of crises generated by the green revolution and suggest remedial measures.

News from UGC

Countrywide Classroom Programme

Between 22nd and 30th April, 1999 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. two days a week i.e. on Saturdays and Sundays. On DD2 International Programme will be shown at 11.00 to 12.00 hours on Saturdays only.

Hindi Programmes are being telecast on Mondays to Fridays from 6.00 to 6.30 a.m.

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News from Abroad

Strengthening Academic Exchanges

The academic-exchange programs now administered by the United States Information Agency would get a slight increase under the budget President Clinton is reported to have proposed for fiscal 2000. Under the reorganization of U.S. foreign-affairs agencies now under way, the USIA will cease to exist in October 1999 and most of its programmes will be taken over by the State Department. Academic exchanges will continue to get a separate budget allocation.

David Whitten, Executive Director of the agency's Bureau of Educational and Cultural Affairs, said the $210-million requested for exchanges reflected a net increase of $9.8-million over the amount appropriate for them in fiscal 1999.

If approved by Congress, funds for the J. William Fulbright Educational Exchange Program would be increased by $8.5-million, to $112-million. Of that sum, $2.7-million is to support what will now be known as the Fulbright Institutes in American Studies, formerly called the American Studies Programs.

"On the face of it, this appears to be a serious attempt to give Fulbright an increase, and those who care about the program should appreciate that," said Patti McGill Peterson, a vice-president of the Institute of International Education and head of its Council for International Exchange of Scholars, which runs the Fulbright program for senior scholars. "But we have a long way to go before this really gets adjudicated by Congress."

The network of some 450 overseas student-advising centres supported by the USIA is expected to receive about the same as it was appropriated in 1999, S3.1-million. "We're still playing with the figures, but we believe the advising centres will remain at the same level or just slightly below it," said Keith Geiger, Director of academic programs at the agency.

Funds for the centres, which are annually visited by 200,000 students seeking information about U.S. higher education, had been reduced in recent years. Last year, the allocation for the centres was again slated to be cut, by one-third, or about $1-million — until a lobbying campaign by U.S. colleges and international-education groups succeeded in persuading Congress to restore funds for the program.

The increases for some programs in the proposed budget is to be offset by a total of $2.9-million in reductions, including a $1-million cut in funds for the USIA's English-language programs.

Thomas S. Miller, chief of the English-language program division of the USIA, said the cut might mean a collapse of the English Fellows program, which sends U.S. scholars — 44 this year — to other countries to teach English.

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[illegible]

CHAIRMAN

BOOK REVIEW

A How to-do-it Manual

M.P. Satija*

M.K. Jain. Library manual : A practical approach to management. 2nd rev and enlarged edition. New Delhi : Shipra Publications, 1999, xii, 323 p. Rs. 480/-.

First published in 1996 its second edition in a short span is a witness to its usefulness. The new edition reprints some latest government documents and an additional chapter on the Internet besides the two already contributed chapters by Nirmal K. Jain of Canada on library automation and the Internet.

It is a manual, indeed a practical handbook of library procedures to run a small library. Author's experience of work in government departmental and ministries' libraries shows up here and there but does not limit his prescriptions to only such libraries. It seems equally useful to small public and school libraries. There are 13 chapters in all including the eleventh chapter "Seven important documents regarding librarians and libraries". This chapter, which could better have been given as an appendix, reprints, without comments, some important and authoritative sanctions, letters, and regulations issued by bodies like the University Grants Commission, Ministries such as Human Resources Development, Finance and Personnel and the various Pay Commissions set up by the Government of India. The documents include latest (November 1998) pay revision notification for university and college teachers including librarians. Rest of the documents are on the qualifications, promotion rules, recruitment procedure, stock verification rules applicable to libraries of government departments. These rules are of mandatory bureaucratic nature rather than being norms or standards. Nevertheless, these official documents multiply the value of the book.

The bulk of the book from the beginning is devoted to internal organisation, staff nomenclature and duties, sources of book selection, ordering procedurre, processing of acquired material for shelving and circulation. Examples for cataloguing are according to AACR-I (1967) instead of AACR-2. For classification major DDC numbers, especially useful to Indian libraries have been enumerated. A chapter on non-book material, their sources and handling is quite useful for Indian librarians. There is a separate chapter on procedures and problems of management of serials. Chapters on binding and preservation of reading materials suggest solutions of common problems faced in Indian libraries. The chapter on library automation provides overview of the automation procedures and provides tips for selecting a library software. It is full of wise advice. Nirmal Jain's chapter on Internet has been written from viewpoint of its usefulness in libraries. Shanker Singh's chapter on Internet, though repetitive, is a lucid and concise explanation of its structure, working and services suited to a layperson.

The book is indeed a how-to-do-it manual profusely illustrated with administrative notes, letter specimens, model rules and diagrams. Panned by an experienced library bureaucrat steeped in library routines and procedures the book is out and out practical. Language is clear and simple. Physical get up, especially its large type print is convenient. Some minor misprint which pop up unexpectedly sometimes though irksome, do not lessen the value of the book. This manual is highly recommended to new librarians, untrained library managers and to the fresh library science students. The book deserves to be translated in Hindi and other Indian languages to reach a wider audience and help those novices who grope in dark for practical guidance and procedures to manage a library.

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* *Deptt. of Library and Information Science, Guru Nanak Dev University, Amritsar-143 005.*

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THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities(February-March 1999)

SOCIAL SCIENCES

Anthropology

1. Das, Girindra Nath. **Impact of the Integrated Jhumia Development Programme on the hill tribes of Assam: A case study among the Karbis.** (Prof R K Kar), Department of Anthropology, Dibrugarh University, Dibrugarh.

2. Ravi Prasad, B V. **The Nicobarese of Andaman and Nicobar Islands: A demo-morphological study.** (Prof B Bhaskara Rao), Department of Anthropology, Andhra University, Waltair.

Commerce

1. Deb, Samar. **Investment policy of LICI: An appraisal over N E Region.** (Dr G C Deka), Department of Commerce, Gauhati University, Guwahati.

2. Jahangir, Md Sawkat. **Causes and remedies of industrial sickness in Bangladesh.** (Prof A Farooq Khan), Department of Commerce, Aligarh Muslim University, Aligarh.

3. Kaifi, Shadman. **Role of tourism in the economic development of hilly region of UP.** (Prof Mahfoozur Rahman), Department of Commerce, Aligarh Muslim University, Aligarh.

4. Sharma, Sudhir Kumar. **Madhya Pradesh Rajya Sehkari Bank ka sangathan, karyapranali evam upalabdhiyon ka mulyankan.** (Dr L M Malviya), Department of Commerce, Guru Ghasidas University, Bilaspur.

Economics

1. Abdul Karim. **Import substitution and export promotion: Case of Indian engineering industry, 1970-1987.** (Dr Rameshwar Tandon), Department of Economics, Bangalore University, Bangalore.

2. Dogra, Dharamsingh. **Money, finance and economic growth in India.** Department of Economics, Maharaja Sayajirao University of Baroda, Vadodara.

3. Ghosh, Madanmohan. **The revival of regional trade arrangements: Implications for Indian trade policy.** (Prof Manmohan Lal Agarwal), Centre for Studies in Diplomacy, International Law and Economics, Jawaharlal Nehru University, New Delhi.

4. Hari Krishna, V. **Inter state disparities in banking development in India.** (Prof B Satyanarayan and Prof R K Mishra), Department of Economics, Osmania University, Hyderabad.

5. Jena, Pratap Ranjan. **State finances of Orissa: A temporal study.** (Prof T Diwakar Rao), Department of Economics, University of Hyderabad, Hyderabad.

6. Madhu Bala. **Performance of core sector industries in India: A case study of cement industry.** (Prof G K Chadha), Centre for the Study of Regional Development, Jawaharlal Nehru University, New Delhi.

7. Mallikarjun, M. **Intra-regional disparities in economic development: A study of Telangana Region of Andhra Pradesh.** (Prof K S Khan), Department of Economics, Aligarh Muslim University, Aligarh.

8. Nanda, Rakesh. **A comparative study of adopters and non-adopters of Poplar, Populus, Deltoides based agro-forestry in Punjab.** Department of Extension Education, Punjab Agricultural University, Ludhiana.

9. Padmini, E V K. **Funds management of district cooperative bank in Kerala.** (Dr Ramakrishnan Korakandy), Department of Economics, Cochin University of Science and Technology, Kochi.

10. Sarker, Anil Ranjan. **Money supply and its effects on output and price level with special reference to India, 1950-90.** (Dr C K Mukhopadhyay), Department of Economics, University of North Bengal, Raja Rammohunpur, Distt Darjeeling.

11. Shankar, Abha. **US economic diplomacy since the 1970s.** (Prof K D Kapur), Centre for Studies in Diplomacy, International Law and Economics, Jawaharlal Nehru University, New Delhi.

12. Shobha, K. **An evaluation of the performance of State Ware Housing Corporation of Andhra Pradesh.** (Dr K Chakradhar Rao), Department of Economics, Osmania University, Hyderabad.

13. Virender Singh. **A study of the finances of the urban local self-Governments in Haryana.** Department of Economics, Kurukshetra University, Kurukshetra.

Education

1. Behera, Kailash Chandra. **An evaluative study of navodaya vidyalayas in Haryana.** Department of Education, Kurukshetra University, Kurukshetra.

2. Borethakur Chakravorty, Manideepa. **A study of certain correlates of scholastic achievement of students in Catholic Mission schools.** (Dr K K Deka), Department of Education, Dibrugarh University, Dibrugarh.

3. Borgohain Gogoi, Biva Rani. **A study of environmental problems of Uppar Assam and need for environmental Education.** (Dr L N Konwer), Department of Education, Dibrugarh University, Dibrugarh.

4. Grover, Neeru. **An investigation into the relationship between achievement of selected concepts of Organic Chemistry and sementic reasoning abilities.** (Prof Devendra Joshi), Department of Education, Jamia Millia Islamia, New Delhi.

5. Laxma Reddy, K. **A study on the impact of inservice training programmes organised at diet level for primary school teachers with emphasis on theme specific programme of minimum levels of learning.** (Dr C Madhumathi), Department of Education, Osmania University, Hyderabad.

6. Mahmood Ali. **Personal values, career aspirations, academic achievement and socio-economic status as determinants of educational choice at senior secondary level.** (Prof C P S Chauhan), Department of Education, Aligarh Muslim University, Aligarh.

7. Patel, Rameshbhai Chaturbhai. **A study of scientific attitude and its correlates among secondary school students of Baroda.** Department of Education, Maharaja Sayajirao University of Baroda, Vadodara.

Home Science

1. Kalyani, W. **Micro enterprise management in women.** (Prof K Chandralekha), Department of Food Science and Nutrition, Sri Padmavati Mahila Visvavidyalayam, Tirupati.

2. Telaprolu, Neeraja Pavankumar. **Stress experienced and role fulfilment by career women in dual career families.** Department of Home Science, Maharaja Sayajirao University of Baroda, Vadodara.

Law

1. Mullankuzhiyil, George Joseph. **Challenges to the federal model of Government and its under lying constitutional philosophy: A juristic critique in the background of recent developments.** (Dr A P Pillai), Department of Law, Nagpur University, Nagpur.

2. Sinha, Manoj Kumar. **Implementation of non-derogable human rights: A study of Indian experience.** (Prof V S Mani), Centre for Studies in Diplomacy, International Law and Economics, Jawaharlal Nehru University, New Delhi.

3. Zaheeruddin. **Workers exploitation and legal safeguards.** (Prof Saleem Akhtar), Department of Law, Aligarh Muslim University, Aligarh.

Library & Information Science

1. Kawale, Arun V. **Perspective and a plan for the establishment of National Information Centre on Petroleum.** (Dr P S G Kumar), Department of Library and Information Science, Nagpur University, Nagpur.

2. Vyas, Kirit Manharlal. **Reference sources published in Gujarati: A technical evaluation.** (Dr C R Krisiddappa), Department of Library and Information Science, Bhavnagar University, Bhavnagar.

Management

1. Ansari, Valeed Ahmad. **Capital asset pricing model: An empirical investigation.** Department of Business Administration, Aligarh Muslim University, Aligarh.

2. Shajahan, S. **Impact of integrated marine fisheries development project among the artisanal fishermen in Kerala.** (Prof N Ranganathan), School of Management Studies, Cochin University of Science and Technology, Kochi.

3. Yamuna Krishna, M. **Impact of disinvestment programme in public sector undertakings on Indian economy.** (Prof A V Satyanarayan Rao and Prof R K Mishra), Department of Management, Osmania University, Hyderabad.

Political Science

1. Bhanot, Monica. **Contemporary global priorities and regional dynamics in South Asia.** Department of Political Science, Maharaja Sayajirao University of Baroda, Vadodara.

2. Mishra, Jyoti. **Gandhi, Lohia aur Deen Dayal Upadhyaya ke rajnitik vicharon ka tulanatmak adhyayan.** (Dr Arvind Sharma), Department of Political Science, Guru Ghasidas University, Bilaspur.

3. Sengupta, Susmita. **Regionalism in Meghalaya.** (Prof A K Baruah), Department of Political Science, North Eastern Hill University, Shillong.

4. Shankar Sharan. **Democratic centralism: A study of theory and practice of the Soviet Party Organisation.** (Prof Devendra Kaushik), Centre for Russian, Central Asian and East European Studies, Jawaharlal Nehru University, New Delhi.

5. Suresh, T G. **Ideology in Post-Mao China.** (Prof G P Deshpende), Centre for East Asian Studies, Jawaharlal Nehru University, New Delhi.

Psychology

1. Naved Iqbal. **Role of stressful life events expressed and suppressed anger in coronary heart disease and essential hypertension.** (Prof Hamida Ahmad), Department of Psychology, Aligarh Muslim University, Aligarh.

2. Soneja, Shubha. **Psycho-social variables of the elderly with different physical ailments.** (Dr K Bharathi Kumari), Department of Psychology, Jamia Millia Islamia, New Delhi.

Public Administration

1. Laxman, M. **Administration of rural development programmes with special reference to Development of Women and Children in Rural Areas DWCRA in Nizamabad District.** (Prof K V Rameshraju), Department of Public Administration, Osmania University, Hyderabad.

Social Work

1. Anand, Ushvinder Kaur. **A study of the effect of retirement on working women.** (Prof H Y Siddiqui), Department of Social Work, Jamia Millia Islamia, New Delhi.

Sociology

1. Das Pattanayak, Robert Kumar. **Conditions of work and life of agricultural labourers in Baleshwar District: Implications for health.** (Prof Imrana Qadeer), Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi.

2. Kediya, Suman. **Mahila krishi shramikon ka ek samajshastriya adhyayan: Bilaspur Janpad kee mahila shramikon per ek adhyaym.** (Dr Abha Tripathi), Department of Sociology, Guru Ghasidas University, Bilaspur.

3. Lade, Pratibha Satish. **A sociological study of childless women.** (Dr T G Meshram), Department of Sociology, Nagpur University, Nagpur.

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MASTER'S PROGRAMMES :

(i) Architecture (35 seats) with Specialisations in - (a) Architectural Conservation (b) Industrial Design (c) Urban Design; (ii) Building Engineering and Management (15 Seats); (iii) Landscape Architecture (15 Seats) , and (iv) Planning (70 Seats) with Specialisations in (a) Environmental Planning (b) Housing (c) Regional Planning (d) Transport Planning (e) Urban Planning.

ELIGIBILITY: (i) M Arch.- Open to B.Arch./B.Planning or equivalent Degree holders. For M.Arch. (Industrial Design) candidates holding B.Arch or equivalent Degree are eligible. (ii) M.B.E.M. - Open to B.Arch/B E (Civil)/B.Arch. Engg. or equivalent Degree holders. (iii) M.L.A. – Open to B.Arch/B.Planning or equivalent Degree holders. (iv) M. Planning - open to B.Arch/B.Planning/B.E.(Civil)/B.Arch. Engg. or equivalent Degree holders. Candidates possessing Master's Degree in Geography/Sociology/Economics are also eligible for the specialisations in Environmental Planning, Housing (Geographers are not eligible for Housing), Regional Planning, Urban Planning. Candidates possessing Master's Degree in Economics/Statistics/Operations Research are eligible for Specialisation in Transport Planning; (v) 55% or more marks in aggregate at the qualifying examination (50% marks in respect of SC/ST candidates)

Sponsored candidates must have a minimum two years' full-time work experience.

SELECTION: Selection will be made from among the applicants called for interview and/or test, on 1st, 2nd and 3rd July, 1999 forenoon on the basis of merit. Candidates with valid GATE Score or UGC(NET) JRF are eligible for scholarship.

RESERVATION OF SEATS: SCs - 15% and STs 7-1/2%. Candidates sponsored by Central/State Government Departments, Statutory Organisations as well as Public Institutions, are admitted under Sponsored Category.

PG SCHOLARSHIPS: The distribution of the limited number of scholarships @ Rs.2500/- p.m. to GATE/UGC(NET)/JRF qualified candidates shall be made on merit in respective category (i.e General and SCs/STs) as per the prescribed guidelines

DOCTORAL PROGRAMMES in the fields of : Architecture, Planning, Urban Design, Industrial Design, Architectural Conservation, Landscape Architecture, Urban Planning, Regional Planning, Environmental Planning, Housing, Transport Planning, and Building Engineering & Management.

ELIGIBILITY: Master's Degree in any of the above courses conducted by the School or its equivalent from any other recognised University/Institution with a minimum of 55% aggregate marks or Bachelor's Degree in Architecture/Planning of the School or its equivalent from any other recognised University/Institution with a minimum of 55% aggregate marks and five years' experience in teaching/research/professional practice. Relaxation in aggregate marks as specified above, may be made in the case of exceptionally qualified applicants.

RESERVATION OF SEATS : As per Government's directive for SC/ST candidates.

FELLOWSHIP: All Scholars with a Master's degree in the respective disciplines are eligible for fellowship of Rs.2400/- per month. Scholars with Bachelor's Degree in Architecture/Planning of the School or its equivalent with a valid GATE Score/UGC (NET)/JRF are eligible for the fellowship of Rs 1800/- per month. In addition, contingent grant is given to the recipients of fellowship. In-service candidates are not eligible for fellowship and contingent grant.

TRAVEL ALLOWANCE: Outstation PG and Ph.D candidates called for interview will be paid travelling allowance (one way for PG candidates & both ways for Ph.D. candidates) for journey from the Railway Station nearest to their residence/place of work and by 2nd Class Railway Fare along the shortest route (Within India).

NRIs may apply directly with Bio-Data on plain paper.

Foreign nationals are required to apply through diplomatic channels of the Government of India.

IMPORTANT DATES

1.(i) Issue of Application Forms Commences on:	BACHELOR'S PROGRAMMES	MASTER'S PROGRAMMES	DOCTORAL PROGRAMMES
(a) Available from UCO Bank Branches at Delhi : IIPA (I.P.Estate, Ring Road), Defence Colony (Near Mool Chand Flyover), Connaught Place (Near Marina Hotel), Karol Bagh (Arya Samaj Road), Som Vihar (R.K.Puram), Punjabi Bagh (Ring Road) against payment of the Application Fee of Rs. 400/- in cash (during working hours only).	28.4.1999	28.4.1999	—
(b) By Post from the School against payment of the Application Fee of Rs. 400/- by Demand Draft on SBI/UCO Bank in favour of "School of Planning and Architecture" payable at New Delhi.	28.4.1999	28.4.1999	28.4.1999
(ii) Last date of issue of Application Forms :			
(a) By post from the School.	24.5.1999	24.5.1999	11.6.1999
(b) From notified UCO Bank Branches	02.6.1999	02.6.1999	—
2. Last date of receipt of completed Application forms at the School and by Registered post.	03.6.1999	03.6.1999	25.6.1999

D.R. BAINS
REGISTRAR

BHARATHIAR UNIVERSITY : COIMBATORE-641 046

FILLING UP OF SC/ST VACANCIES SPECIAL RECRUITMENT DRIVE

ADVERTISEMENT NO. 4123/E 1/99, DATED 01.04.1999

Applications are invited in the prescribed format for the following posts.

Sl. No.	*Department*	*Cadre and No. of Posts*	*Reservation Category*	*Specialisation*
1.	Mathematics	Professor - 1	SC/ST	Differential equations/Functional Analysis/Fluid Dynamics/Numerical Analysis/Control theory
2.	Statistics	Professor - 1	SC/ST	Statistical Inference/Statistical Quality Control/Design of Experiments/Sampling Theory and Methods/Economic Statistics
		Reader - 1	SC/ST	
3.	Sociology	Professor - 1	SC/ST	Educational Sociology
		Reader - 1	SC/ST	Environmental Sociology/Educational Sociology
4.	Psychology	Reader - 1	SC/ST	Psychology of personality/Clinical Psychology/ Organizational Psychology
5.	Population Studies	Reader - 1	SC/ST	Migration and Urbanization/Population Economics/Health and Mortality/Fertility

Qualification and Experience

Professor

An eminent Scholar with published work of high quality, actively engaged in research, with

10 years of experience in postgraduate teaching, and/or experience in research at the University/National Level institutions including experience of guiding research at doctoral level.

Or

An outstanding scholar with established reputation who has made significant contribution to knowledge.

In exceptional cases, the teachers with 15 years of UG teaching/research experience will also be considered.

Reader

Good academic record with a doctoral degree or equivalent published work. In addition to these candidates who join from outside the University system, shall also possess at least 55% of the marks or an equivalent grade of B in the 7 point scale with latter, grades O, A, B, C, D, E and F at the Master's degree level.

Five years of experience of teaching and/or research excluding the period spent for obtaining the research degrees and has made some mark in the areas of scholarship as evidenced by quality of publications, contribution to educational innovation, design of new courses and curricula.

The qualifications for all the above posts are according to UGC norms.

Scale of pay : Pre revised

Professor : Rs. 4,500-150-5,700-200-7,300

Reader : Rs. 3,700-125-4,950-150-5,700

The University reserves itself the right to short-list applicants for interview and to fill or not to fill any or all of the above posts.

Application forms can be had from the Registrar, Bharathiar University, Coimbatore-641 046 on requisition accompanied by a self addressed Rs. 5 stamped envelope (25 cm x 10 cm). Attested copies of certificates showing qualifications, age, community, experience, etc, should be sent along with the application in the prescribed form (in eight copies) together with Registration fee of Rs. 25/- in the form of crossed Indian postal order dated not earlier than 05.04.99 drawn in favour of the Registrar, Bharathiar University, Coimbatore-641 046.

Any candidate applying for more than one post shall submit separate applications for each post.

Candidates in service shall submit their application through proper channel.

Completed applications (eight copies) should reach the Registrar on or before **07.05.99.**

Incomplete applications and applicants without the required registration fee will not be considered.

REGISTRAR I/C

COLLEGE OF BUSINESS STUDIES
(UNIVERSITY OF DELHI)

ADMISSION NOTICE

BACHELOR OF BUSINESS STUDIES (BBS)

(THREE YEAR (1999-2002) FULL-TIME PROFESSIONAL COURSE, BEGINNING IN JULY, 1999)

ELIGIBILITY CONDITIONS : (a) Candidates must be 17 years of age before October 1, 1999.

(b) He/She must have passed the Senior Secondary Examination of the CBSE (or equivalent) not before 1998 with an aggregate of at least 60% marks (55% for SC/ST/WW) across four papers including English. Rest of the three papers are required to be from amongst the following papers only : Mathematics, Physics, Chemistry, Biology, Accountancy, Business Studies, Economics, Psychology, History, Political Science, Social Science, Geography and Computer Science.

(c) Candidates appearing for the Senior Secondary (or equivalent) Examination in 1999 are also eligible to apply.

RESERVATION : Reservation for SC/ST candidates and for wards/widows of armed personnel killed/disabled in action during the hostilities is admissible as per the University rules.

ADMISSION CRITERION : Selection will be made on merit, to be determined on the basis of written test, group discussion, and interview. An objective type written test will be held on **Sunday, June 6, 1999 at 10:00 a.m. at Calcutta, Chandigarh, Delhi, Kanpur and Mumbai.** Qualifying candidates shall be called for group discussion and interview at the college premises.

APPLICATION PROCEDURE : Information Bulletin and Application Form can be obtained from **April 7, 1999** from the college office between 9.30 a.m. and 3 p.m. (Monday through Friday) personally by submitting a crossed bank draft issued by **State Bank of India**, for Rs. 310/- (Rs. 185/- for reserved category), drawn in favour of **"PRINCIPAL, COLLEGE OF BUSINESS STUDIES, DELHI"**. Candidates must write their full name, category, postal address, phone number, and opted test centre at the back of the bank draft. Cash, Money order, and Postal Orders etc will not be accepted.

Candidates (**outstation only**) wanting application form by post, must also send a self-addressed stamped (Rs. 40/-) envelope (23 cms x 30 cms) and a photocopy of both sides of the bank draft alongwith the bank draft superscribing the envelope 'Purchase of Application Form'. Candidates purchasing application form by hand from the college counter are also required to submit a photocopy of both sides of the bank draft.

Application form, complete in all respects, should reach the Administrative Officer, College of Business Studies, Vivek Vihar Phase II, Delhi 110 095 latest by May 5, 1999

Dr. R.M. Singh
PRINCIPAL

PAL INSTITUTE OF MANAGEMENT & TECHNOLOGY

IGNOU Road Anupam Garden, Opp. Saket, New Delhi-110 068
Phones : 6865757, 6964268, 6964269 Fax : 6868268
e-mail : pimt@nde.vsnl.net.in

ADVT. NO. : 99/04 FOR TEACHING/NON-TEACHING POSITIONS

THE INSTITUTE is seeking affiliation from the newly-established INDRAPRASTHA VISHWAVIDYALAYA, AND IS LOCATED IN PLUSH-GREEN SOUTH DELHI AREA.

APPLICATIONS with complete RESUME are invited for the following positions, as per pay scales and Norms of AICTE/UGC **within 15 days of this Advertisement.**

FACULTY POSITIONS: PROFESSORS/READERS/LECTURERS GRADE

FOR B.ARCH COURSE : First year Modules.

FOR MANAGEMENT COURSES : Finance, Organisation Behaviour/HRM and Business Maths.

FOR COMPUTER APPLICATIONS : First Year Modules.

NON-TEACHING (FOR OFFICE/LIBRARY/COMPUTER LAB.)

Administrative Officer (1) Librarian (1) Library Assistant (1) Computer Lab. Assistant (2) Stenographer (1) Office Assistant (2), with knowledge of accounts.

Note : **Knowledge and experience in use of Personal Computers is required of all non-teaching positions.**

PLEASE write the name of the POST APPLIED FOR on the top of the Envelope and enclose a Bank draft for Rs. 100/- (Teaching Posts) and Rs. 50/- (for Non-Teaching Posts) favouring P.I.M.T, New Delhi to cover processing charges so as to reach the Principal, on or before **APRIL 30, 1999** by COURIER/REGISTERED POST.

The Institute will contact SHORTLISTED CANDIDATES only, and reserves the right not to fill up any post advertised herein. NO TA/DA ADMISSIBLE.

HOMI BHABHA CENTRE FOR SCIENCE EDUCATION

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
V.N. Purav Marg, Mankhurd, Mumbai-400 088

Advertisement No. 1/99

RESEARCH SCHOLARSHIP AT HOMI BHABHA CENTRE FOR SCIENCE EDUCATION

HBCSE is a National Centre of TIFR devoted to science and mathematics education from primary school to plus-2 level. We are looking for exceptionally motivated post-graduates with a good academic record and a strong interest in education. Research Scholars will contribute to the R & D programs of the Centre and work towards a Ph.D. degree in Science Education (Faculty of Science, University of Mumbai).

AREAS OF STUDY

Opportunities are offered for R & D in these areas of science and mathematics education : (1) Cognitive, historical, philosophical and socio-cultural issues in learning (2) Curriculum studies (3) Low-cost laboratories. (4) Advanced Olympiad laboratories and (5) Computer and audio-visual based learning.

REQUIREMENTS

Recent M.Sc. in any of the natural sciences or mathematics with consistently good academic record.

AGE : Below 25 years (relaxable in deserving cases)

FINANCIAL ASSISTANCE

- Fixed monthly scholarship of Rs. 5400/-
- Annual Contingency grant of Rs. 7500/- p.a. to cover cost of books, software, educational expenses, registration fees etc. tenable up to 5 years.

The admissions are made for a year at a time, but are renewable annually up to a maximum period of 5 years. Scope exists for upward revision in scholarship on completion of 2 years. Selected candidates will be considered for allotment of Hostel accommodation at a nominal rate. After completion of Ph.D. outstanding scholars may be considered for absorption in the regular academic stream of HBCSE (TIFR).

HOW TO APPLY :

Please write for application forms to the **Sr. Administrative Officer, Homi Bhabha Centre for Science Education (TIFR), V.N. Purav Marg, Near Anushaktinagar Bus Terminal, Mankhurd, Mumbai-400 088.** Please enclose a self addressed 25 cm x 12 cm, envelope with postal stamp of Rs. 6/-. Completed applications should reach HBCSE latest by **June 30, 1999.**

CLASSIFIED ADVERTISEMENTS

UNIVERSITY OF MUMBAI

MUMBAI-400 032

Applications are invited in the prescribed form for the following posts in the University Teaching Departments under the recruitment Drive to fill up the Backlog of reserved and open posts.

ECONOMICS DEPARTMENT

*1. Professor of Econometrics — 01 (DT-NT)
***2. Professor of International Economics — 01 (OBC)
***3. Reader in Monetary & International Economics — 01 (ST)
**4. Reader in Agricultural Economics — 01 (OBC)
**5. Lecturer in Urban Economics — 01 (DT-NT)

SOCIOLOGY DEPARTMENT

*****6. Reader — 01 (SC)
*7. Reader — 01 (DT-NT)

CIVICS & POLITICS DEPARTMENT

8. Professor of Politics — 01 (SC)
9. Reader in American Government and Politics — 01 (ST)

CENTRE FOR AFRICAN STUDIES

10. Professor — 01 (OPEN)
11. Lecturer — 01 (OPEN)
***12. Reader — 01 (SC)

CENTRE FOR CENTRAL EURASIAN STUDIES

13. Lecturer — 01 (OPEN)
***14. Reader — 01 (SC)

STATISTICS DEPARTMENT

15. Professor — 01 (OPEN)
**16. Reader — 01 (SC)
17. Lecturer — 01 (SC)
18. Lecturer — 01 (DT-NT)

UNIVERSITY LIBRARY

19. Deputy Librarian — 01 (OPEN)

LIBRARY AND INFORMATION SCIENCE DEPARTMENT

***20. Reader — 01 (SC)
*****21. Lecturer — 01 (SC)

UNIVERSITY LIBRARY

*22. Assistant Librarian — 01 (SC)
23. Assistant Librarian — 01 (OPEN)

APPLIED PSYCHOLOGY

24. Professor — 01 (OPEN)
*25. Professor — 01 (SC)
**26. Reader — 01 (SC)
***27. Lecturer — 01 (DT-NT)
**28. Lecturer — 01 (OBC)

LAW DEPARTMENT

29. Professor of Commercial Law — 01 (OPEN)
****30. Professor of Constitutional Law — 01 (SC)
31. Lecturer — 01 (OPEN)
**32. Lecturer — 01 (OBC)

ENGLISH DEPARTMENT

33. Reader — 01 (OPEN)
*****34. Reader — 01 (SC)

SANSKRIT DEPARTMENT

35. Ramkrishna Bhandarkar Professor of Sanskrit — 01 (OPEN)
****36. Lecturer — 01 (SC)

MATHEMATICS DEPARTMENT

37. Professor — 01 (SC)
38. Professor — 01 (OPEN)
39. Reader — 01 (DT-NT), 01 (OPEN)
**40. Professor — 01 (ST)
****41. Professor — 01 (DT-NT)
***42. Reader — 01 (OBC)

LINGUISTICS DEPARTMENT

43. Professor — 01 (OPEN)
44. Reader — 01 (OPEN)
****45. Lecturer — 01 (SC)

FRENCH DEPARTMENT

*46. Lecturer — 01 (SC)

GERMAN/RUSSIAN DEPARTMENT

***47. Reader in German — 01 (SC)

PERSIAN DEPARTMENT

48. Reader — 01 (OPEN)

CHEMISTRY DEPARTMENT

49. Professor of Chemistry — 01 (OPEN)
50. Reader in Chemistry (Organic Chemistry) — 01 (ST)
51. Lecturer in Inorganic Chemistry — 01 (DT-NT)

PHYSICS DEPARTMENT

52. Professor of Theoretical Physics — 01 (OPEN)
53. Professor of Physics — 01 (SC)
54. Reader — 01 (SC)
55. Reader — 01 (OBC)

MARATHI DEPARTMENT

56. Professor — 01 (OPEN)
57. Reader — 01 (SC)
58. Lecturer — 01 (OPEN)

HINDI DEPARTMENT

59. Reader — 01 (OPEN)
60. Lecturer — 01 (OPEN)

HISTORY DEPARTMENT

61. Reader — 01 (OPEN)
62. Lecturer — 01 (OPEN)
63. Lecturer — 01 (OPEN)

EDUCATION DEPARTMENT

***64. Reader — 01 (SC)
65. Lecturer — 01 (SC)

GEOGRAPHY DEPARTMENT

*66. Reader — 01 (SC)
*67. Lecturer — 01 (DT-NT)

COMPUTER SCIENCE

*****68. Reader — 01 (SC)
69. Reader — 01 (OPEN)
70. Lecturer — 01 (OPEN)

COMMERCE DEPARTMENT

71. Professor in Banking — 01 (OPEN)
*****72. Reader in Banking — 01 (SC)
73. Lecturer — 01 (OPEN)
*74. Lecturer — 01 (SC)

LIFE SCIENCES DEPARTMENT

75. Professor — 01 (OPEN)
76. Lecturer — 01 (OPEN)

URDU DEPARTMENT

77. Krishan Chandar Professor of Urdu — 01 (OPEN)

SIR J.J. COLLEGE OF ARCHITECTURE

*78. Professor — 01 (SC)
*79. Reader in Architecture — 01 (SC)
*80. Reader in Architecture — 01 (OBC)
*81. Reader in Architecture — 01 (DT-NT)
*82. Lecturers — 01 (SC), 01 (ST), 01 (DT-NT), 02 (OBC), 01 (OPEN)
*83. Lecturers in Structure — 01 (SC), 01 (OPEN)

GURUDEV TAGORE CHAIR OF COMPARATIVE LITERATURE DEPARTMENT

84. Gurudev Tagore Professor of Comparative Literature — 01 (OPEN)

PHILOSOPHY DEPARTMENT

*****85. Lecturer — 01 (SC)

The pay scales of the posts are as follows :

Professor : Rs. 4500-150-5700-200-7300
Reader : Rs. 3700-125-4950-150-5700
Lecturer : Rs. 2200-75-2800-100-4000

In addition to pay, Dearness Allowance, House Rent Allowance; Compensatory Local Allowance will be paid according to the University rules. The posts carry the retirement benefits according to the existing rules of the University.

The minimum qualifications prescribed for the posts are as under :

PROFESSOR :

An eminent scholar with published work of a high quality actively engaged in research with ten years of experience in postgraduate teaching and or research at the University/National level Institutions, including experience of guiding research at doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

READER :

Good academic record with a doctoral degree or equivalent published work. Candidates from outside the University system in addition shall also possess at least 55% marks or an equivalent grade at the Master's degree level.

Eight years experience of teaching and/or research including up to three years for research degree and has made some mark in the areas of scholarship as evidenced by quality of publications, contribution to educational innovation, design of new courses and curricula.

LECTURER :

Good academic record with at least 55% marks or an equivalent grade at Master's degree level in the relevant subject from an Indian University or an equivalent degree from a foreign University.

Candidates besides fulfilling the above qualifications should have cleared the eligibility test for Lecturers conducted by UGC, CSIR or similar test accredited by the UGC.

Relaxation from requirement of a minimum of 55% marks at Master's degree level is not permissible in any case. However, the candidates belonging to any one of the following categories are exempted from the requirement of clearing the Lectureship Eligibility Test provided they possess a minimum of 55% marks at Master's degree level;

1. Those who have passed the NET Examination conducted jointly by the CSIR-UGC for Junior Research Fellowship Award;

2. Those who have passed SET examination, Maharashtra Conducted by University of Pune as the State Agency (Ref. : Govt. of Maharashtra Resolution No. UGC-1391/2066/VS-4 dated 14.07.1994), Accredited by U.G.C. Pune-411 007.
3. Those who have passed M.Phil degree examination upto 31st December, 1993.
4. Those who have submitted Ph.D. thesis upto 31st December, 1993.

The minimum qualifications prescribed for the posts of Professor, Reader in Architecture, Lecturer and Lecturer in Structure as in the Sir J.J. College of Architecture are as under :

PROFESSOR :

Bachelor's Degree or equivalent qualification (in relevant discipline) with 10 years experience in Teaching/Profession/Research out of which 5 years must be at the level of Assistant Professor or equivalent

OR

Master's Degree in Architecture or relevant discipline with 8 years (6 years in case of Ph.D. in Architecture or relevant descipline) experience in Profession/Teaching/Research out of which 5 years must be at the level of Assistant Professor or equivalent.

READER :

Bachelor's Degree or equivalent qualification in Architecture (or in relevant discipline) having 7 years experience in Teaching/Profession/Research of eminence (5 years with Master's Degree or 3 years with Ph.D. in Architecture or in relevant discipline).

LECTURER :

First Class Bachelor's Degree or equivalent qualification in architecture.

OR

Bachelor's Degree or equivalent qualification in architecture with two years practical experience in the profession.

The minimum qualifications prescribed for the posts at serial number 83 is as under :

LECTURER IN STRUCTURE :

(a) Master's degree in appropriate field in Engineering/Technology.
(b) Consistently good academic record with a Bachelor's degree in Engineering/Technology, first Class at Bachelor's degree and/or Master's degree level.
(c) One year's relevant professional experience outside academic/research institutions.

Having regard to the requirements of emerging fields of Engineering and of developing interdisciplinary programmes, the requirements of engineering/Technology Degrees may be waived in the cases of otherwise well qualified candidates.

Provided further that if a candidate does not possess professional experience or a person possessing such experience is not found suitable, the person appointed will be required to obtain desired professional experience within a period of five years of his appointment, failing which he will not be able to earn future increments until he fulfils this requirement.

Nine copies of the application in the prescribed form together with attested copies of certificates along with a crossed Demand Draft on a scheduled Bank for the amount of Rs. 20/- in the case of candidates belonging to general category and Rs. 15/- in the case of candidates belonging to SC/ST/DT and NT drawn in favour of The Finance and Accounts Officer, University of Mumbai, should be sent in an envelope superscribed with "Application for the post of...... (Sr. No.)" so as to reach the Registrar, University of Mumbai (T.A.U., Room No. 134), Fort, Mumbai-400 032, **on or before 17th May, 1999.** Candidates from abroad, Andaman and Nicobar Islands and Lakshadweep may send their applications so as to reach the Registrar on or before **07 June, 1999.** Candidates who are already employed shall send their applications through proper channel. Applications received after the last date fixed for the receipt of applications will not be accepted. The University shall not be responsible for any postal delay. Incomplete applications and applications on plain paper will not be considered. Canvassing direct or indirect will be a disqualification.

Application forms and details regarding additional qualifications, specializations etc can be had free of cost from the Teaching Appointments Unit, Room No. 134, University of Mumbai, Fort, Mumbai-400 032, either in person or by sending a requisition with self addressed envelope (31 cm x 23 cm) bearing postage stamp to the value of Rs. 20/-.

Candidates having knowledge of Marathi will be preferred.

NOTE : The post is reserved for any one of the backward classes viz. SC/ST/DT-NT and is being advertised for the (*) second time (**) third time (***) fourth time (****) fifth time and (*****) sixth time.

Dr. P.V. Pradhan
REGISTRAR

KEYI SAHIB TRAINING COLLEGE

Taliparamba, Kannur-670 142
Kerala

Applications are invited for the following posts, subject to the approval of Kannur Uni-

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PRESTIGE

PRESTIGE EDUCATION SOCIETY

The society wishes to recruit faculty in the following institutes.

I. **Prestige Institute of Management and Research, INDORE**
(Associate Professor - Systems, QT/ or;
Assistant Professor - Systems, Finance, Marketing, Physics with specialisation in electronics)
II. **Prestige Institute of Management, MANDSAUR**
(Assistant Professor - Systems, Finance, Marketing and HR)
III. **Prestige Institute of Management, GWALIOR**
(Assistant Professor - Systems, Finance, HR, QT)

The faculty members are required to participate in teaching, training and research. The consultancy is encouraged on sharing basis.

Salary Scale (pre-revised)	Total Emoluments (minimum)	Qualifications
Rs. 3700-5700	Rs. 11,725	Ph.D. or equivalent research work or Fellows of IIMs, ICA, ICWA; Teaching/ Consulting/ Professional experience of 5 years.
Rs. 2200-4000	Rs. 7,462	Ph.D. or Fellows of IIMs, ICA, ICWA or Masters Degree plus Professional experience of 2 years.

Requirements may be relaxed in case of outstanding candidates. Contractual appointments are admissible. Those in final stages of Ph.D. may also apply.

Benefits : The DA and other service conditions are generally those applicable to National Institutes/ University Teaching Departments.

How to apply : Send detailed curriculum vitae along with supporting documents, contact Phone number and a D.D. worth Rs. 100 in favour of Prestige Education Society payable at Indore. One is required to apply on plain paper for each institute separately as preferences will not be considered. All applications should reach by April 30, 1999 to **The Director, Prestige Institute of Management & Research, 2, Education and Health Sector, Scheme 54, Indore 452 010.**

Swift/99

versity

1. Lecturer in Social Studies
2. Lecturer in Hindi
3. Lecturer in Education

Qualifications & Age : As per the University and Government Rules.

The applications should be submitted in the prescribed form which can be obtained from the college office on payment of Rs. 100/- (by Money Order Rs. 110/-). Application with all copies of the relevant certificates should reach the Principal **within 30 days** from the date of this Notification.

MANAGER

SAURASHTRA UNIVERSITY

RAJKOT-360 005

Applications in the prescribed forms are invited from the eligible candidates for the following posts :

1. **Professor** : Management — 1 (for M.B.A.)
   Commerce — 1
2. **Associate Professor (Reader)** :
   History — 1
3. **Assistant Professor (Lecturer)** :
   English (OBC) — 1

Application forms can be had from the Registrar, Saurashtra University, University Campus, University Road, Rajkot-360 005, on sending a self addressed stamped envelope (worth Rs. 10/-) of 30 x 20 cms. size with a fee of Rs. 50/- by Crossed Indian Postal Order or DD in favour of Registrar, Saurashtra University, Rajkot.

Application duly filled in **Eleven Copies should reach this office on or before 30.04.1999** alongwith A/C Payee Demand Draft of Rs. 100/- (Non-refundable) for each of the posts, drawn in favour of the Registrar, Saurashtra University, Rajkot.

Note : 1. Details of Pay Scales, Qualifications and Specialization will be sent alongwith blank application forms.

2. For the post of Professor Management those who have applied earlier, need not apply again.

REGISTRAR

NAM COLLEGE

KALLIKKANDY

(Aided College Affiliated to Kannur University)

G2 — Adv/103/99 12.4.99.

WANTED

Applications on plain paper are invited from qualified hands for the post of PRINCIPAL.

Qualification and Experience : As prescribed by Kannur University.

Age and Scale of pay : As prescribed by Govt. of Kerala.

Apply **within 30 days** of this advertisement with Bio-data Self attested Copies of Certificates and a postal order for Rs. 100/- payable at Thuvakkunnu. P.O., in favour of the Manager NAM College, Kallikkandy, Thuvakkunnu, Kannur District, Kerala, Pin-670 693.

K.K. Mohammed
MANAGER

Devi Sharvani Education Society's

V.M. SALGAOCAR COLLEGE OF LAW

(Government of Goa Aided)

WANTED

Full Time Lecturers — 5 posts. (One post reserved for SC/ST).

2 Part Time Lecturers in each of the subjects for 5 year LL.B. (Hons) — English, Economics, Sociology, Political Science, History.

Qualifications for Full Time Lecturers :
Post Graduate Degree in Law with 55% with NET/SET

Desirable qualifications :
Post Graduation in Arts — English/Political Science/Economics/History or Sociology.

Teaching Experience
Well versed in spoken and written English

Remuneration : As per UGC and Goa University. Service pensionable.

Subsidised accommodation provided.

Qualifications for Part Time Lecturers : P.G. Degree in relevant subject with 55% and NET/SET.

Apply within 10 days to : Principal, V.M. Salgaocar College of Law, P.B. No. 28, Mira-Mar, Panjim, Goa-403 001.

IGNOU

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

Maidan Garhi, New Delhi-110068.

Applications are invited from Indian citizens for filling up the following posts in the Indira Gandhi National Open University in the pay scale shown against each plus usual allowances as admissible under the University rules. (The number of vacancies are indicated in bracket with each subject. However, they are subject to change).

I. **Professor** : (Scale of pay Rs. 16400-450-20900-500-22400) Education (1), Civil Engineering (1), Mechanical Engineering (1).

II. **Reader** : (Scale of pay Rs. 12000-420-18300) Management (1), Commerce (2), Physics (1), Rural Development (1).

III. **Lecturer** : (Scale of pay Rs. 8000-275-13500).

GENERAL
Education (1), Commerce (1), Management (2), Sociology (1), Library Science (1), Computer Science (1), Health Science (1), Nursing (1).

SC/ST
Physics (1), Mathematics (1), Chemistry (1), Nursing (1).

IV. **Director (Distance Education Council** (1) (Scale of pay Rs. 16400-450-20900-500-22400).

V. **Director (STRIDE)** (1) (Scale of pay Rs. 16400-450-20900-500-22400).

VI. **Joint Director (Regional Services)** (1) (Scale of pay Rs. 4500-6300) (Pre-revised).

VII. **Deputy Director/Regional Director (Regional Services)** (2) (Scale of pay Rs.12000-420-18300).

VIII. **Asstt. Directors/Asstt. Regional Directors (Regional Services)** (Gen. 10; SC 1; ST 1) (Scale of pay Rs. 8000-275-13500).

Application forms can be obtained from the **Director (Academic Coordination) Block-4, Room No. 20, IGNOU, Maidan Garhi, New Delhi-110068** on production of a demand draft of Rs. 40/- (Rs. 20/- in the case of SC/ST candidates) drawn in favour of IGNOU payable at New Delhi. Applications can also be sent by post on receipt of a request along with a Demand Draft for the amount mentioned above, and a self addressed stamped envelope (28 x 30 cms.) bearing a postage of Rs. 6/-.

The last date for issue of application forms is 17th May 1999.

The last date for receipt of filled in application forms is 2nd June 1999.

Applications duly completed and securely fastened along with attested copies of degree, other certificates, marks-sheets, published research article, etc. should reach the following address by on or before the prescribed last date.

Director (Academic Coordination)
Indira Gandhi National Open University
Maidan Garhi, New Delhi - 110 068.

Applications incomplete in any respect and those received after the due date shall not be entertained.

For detailed advertisement, the Employment News dated 17th April 1999 may be referred to.

EDUCATIONAL
ANDHRA UNIVERSITY
COMMON ENTRANCE TEST (AUCET)-1999
& ADMISSION NOTIFICATION

Applications in the prescribed form are invited for AUCET-1999 for admission into Andhra University (A.U.) Campus Colleges, P.G. Centres and affiliated colleges for the academic year 1999-2000 for the following courses :

M.Sc./M.Sc. (Tech.)/M.A./M.E./M.Tech. : Statistics, Appl. Mathematics, Mathematics, Physics, Space Physics, Electronics, Materials Science, Nuclear Physics, Electronics (Tech.), Meteorology, Physical Oceanography, Geophysics, Marine Geophysics, Hydrology, Biochemistry, Chemistry (Inorganic, Analytical, Bio-Inorganic, Environmental, Applied Environmental, Organic, Physical, Nuclear, Applied, Industrial, Marine Chemistry & Chemistry & Analysis of Foods, Drugs & Water), Environmental Sciences, Environmental Studies, Botany, Zoology, Marine Biology, Coastal Aquaculture & Marine Biotechnology, Capture and Culture Fisheries, Marine Biotechnology, Human Genetics, Geology, Applied Geology, Marine Geology, Geography, Computer Science, Biotechnology, Home Science, Microbiology, English, Hindi, Sanskrit, Telugu, Education and B.Ed. Special Education, Economics, Applied Economics, Rural Development, Mathematical Economics, History, Ancient History and Archaeology, Politics, Public Administration, Sociology, Psychology, Anthropology, Social Work, Philosophy & Religious Studies, Music, M.H.R.M, Human Rights and Social Action, M.L.I.Sc. (2 years), M.L.I.Sc. (2 summers), M.P.Ed. (summer course), M.Com., M.J.M.C. (1 year), M.J.M.C. (2 years), B.F.A., M.E. (Industrial Engineering — Part-Time) and M.Tech (Computer Science & Technology).

P.G. Diplomas (Full-Time) : Instrumentation, Coastal Zone Management, Prawn & Crab Farming and Management, Cooperation & Rural Studies and Sanskrit with Computer Applications.

P.G. Diplomas (Part-Time) : Yoga, Adult Education and Development, Accounting Software, International Business, Transport Management, Human Resource Development & Industrial Harmony and Bank Management.

Application form with Information Brochure priced at Rs. 75/- can be purchased from the : (A) Principals of i) College of Science & Technology, ii) College of Arts & Commerce, iii) College of Engineering, AU Campus, Visakhapatnam-530 003. (B) Special Officers of i) A.U. Dr. B.R. Ambedkar P.G. Center, Etcherla, Srikakulam-532 402. ii) A.U.M.S. Naicker P.G. Center, Kakinada-533 005 & (C) The Principals and Co-ordinators of A.U. Study Centres at (i) Sir C.R.R. College, Eluru-534 006, (ii) S.R.R. & C.V.R. Govt. College, Vijayawada-520 004, (iii) A.C. College, Guntur-522 001 and (iv) Govt. College, Rajahmundry-533 103.

Applications can also be had by post till 24.4.99 from the above sales centres or **The Convener,** by sending a D.D. for Rs. 75/- drawn in favour of "THE CONVENER, AUCET-1999" payable at any Nationalised Bank in Visakhapatnam, along with a self-addressed envelope (30 cm x 20 cm) affixed with Rs. 15/- postal stamps. **Cheques, challans, moneyorders, postal orders etc, will not be accepted.**

Candidates have to submit a separate application for each test. The filled-in applications should reach The Convener, AUCET-1999 **before 5 p.m. on 30.4.1999** in person or by registered post.

NOTE : 1) The candidates who have passed OR appeared/appearing for the annual qualifying examination of 1999 are eligible for the entrance tests. 2). A limited number of question booklets of previous years are available for sale @ Rs. 10/- per booklet at the above sales centres.

IMPORTANT DATES

1.	Sale of Applications commences from :	03.04.1999
2.	Last date for receipt of Applications before 5.00 p.m. on	30.04.1999
3.	Commencement of Tests (tentative) :	01.06.1999

Principal,
College of Sci. & Tech.

Principal,
College of Arts & Commerce

Principal,
College of Engineering

Special Officer
A.U. Dr. B.R. Ambedkar P.G. Centre

Special Officer
A.U.M.S. Naicker P.G. Center

CONVENER, AUCET-1999
Andhra University, Vijayanagaram Palace,
Pedawaltair post, VISAKHAPATNAM-530 017.

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

स्वामी रामानंद तीर्थ
मराठवाडा विद्यापीठ, नांदेड

"Dnyanteerth", Gautami Nagar,
Vishnupuri, Nanded-431 606

Applications are invited for the undermentioned teaching Faculty positions in the University. Prescribed application form set **can be had from the Publication Section on all working days from 12.4.99 to 30.4.99** either in person or by post on payment of **Rs. 200/-** either in cash or in the form of a crossed D.D. drawn on any Nationalized/Scheduled Bank payable to the Registrar, Swami Ramanand Teerth Marathwada University, Nanded. Applicants desirous of obtaining the application form (a set of ten copies) by registered post shall enclose a self addressed cloth bound envelope of 25 cm x 18 cm size affixed with postage stamps worth **Rs. 25/-. Last date for receipt of application form complete in all respects is 22.5.99.**

Sr. No.	School	Designation	No. of Posts	Reservation	Remarks
01.	Social Sciences	Reader	2	*1-ST	1-IX Plan UGC sanctioned post-open
02.	Chemical Sciences	Reader	1	*1-NT1	
03.	Chemical Sciences	Lecturer	1		IX Plan UGC sanctioned post-open
04.	Earth Sciences	Reader	2	*1-VJ	1-IX Plan UGC sanctioned post-NT3
05.	Earth Sciences	Lecturer	1		IX Plan UGC sanctioned post-open
06.	Physical Sciences	Lecturer	2	*1-VJ	1-IX Plan UGC sanctioned post-OBC
07.	Life Sciences	Lecturer	2	*1-ST	1-IX Plan UGC sanctioned post-SC
08.	Languages & Literature	Professor	1		
09.	Languages & Literature	Reader	1	SC	
10.	Languages & Literature	Lecturer	2	1-SC, 1-Open	
11.	Commerce and Management Science	Professor	1		
12.	Commerce and Management Science	Reader	1	Open	
13.	Commerce and Management Science	Lecturer	2	1-ST, 1-Open	

Reserved posts marked with an asterisk (*) are being advertised for the fifth consecutive time.

NOTE : I) Above posts carry U.G.C. recommended pay scales (presently unrevised).

II) Candidates desirous of applying for more than one post should submit separate applications.

III) Candidates belonging to reserved categories must produce Caste Certificate issued by the competent authority of the State Govt. and validated by the concerned authorities.

IV) In case suitable candidates of specified reserved category are not available, the posts will be filled by appointing other suitable candidates on temporary basis not exceeding a period of one academic year.

V) For reserved posts candidates belonging to Backward Classes as notified by the Govt. of Maharashtra will alone be considered.

VI) Preference will be given to women candidates to the extent of 30% in each category.

VII) Conditions may be relaxed in case of highly qualified and competent candidates.

VIII) Details regarding qualifications, specializations, are given in the Booklet supplied alongwith the application form set.

IX) No application shall be entertained if it is incomplete/received after the last date prescribed/not forwarded through proper channel.

X) The interview of candidates found eligible will be preceded by Exposition/Colloquium.

XI) Mere possession of minimum qualifications does not confer any right to be called for interview and/or selection.

XII) The University will not be responsible for any postal lapses or delay.

XIII) No queries or correspondence regarding issue of call letters for interview/selection of candidates will be entertained at any stage.

XIV) The Selection Committee reserves the right to select highly qualified candidates, in absentia, for Professor's posts.

XV) Candidates will have to attend interview at their own cost.

XVI) The University shall not be held responsible for postponement or cancellation of scheduled interviews for any unforeseen/ unavoidable reasons.

XVII) Bio-data be sent along with each application form of the set.

XVIII) Envelope containing the application form set duly filled in be superscribed — "Application for the post of ....".

Advt No. : TP-3/98-99/
Date : March 26, 1999.

DR. N.A. MOTE
Officiating Registrar

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